

# CITY GOVERNMENT

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## CITY GOVERNMENT.

*Devoted to all Departments of City Work*

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*WANTED—A few copies of City Government of November, 1899, for which 25 cents a copy will be allowed. City Government Publishing Co., Troy, N. Y.*

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### IMPORTANT NOTE.

In this issue of "City Government" our regular departments are omitted, and a number of pages are added, in order to give us space for a full and complete report of the convention of the League of American Municipalities, now in session at Syracuse. This number of "City Government" is issued on the morning of the last day of the convention, and contains the proceedings in full "up to the minute." It is a piece of journalistic enterprise that will be appreciated not only by the members of the League, but by city officials and those interested in municipal affairs throughout the world.

The convention of the League of American Municipalities reported so promptly and fully in this number is the largest and most important gathering of city officials ever held anywhere in the world, and its proceedings are of the utmost importance to the general public. The discussions reported here touch upon every department of city work and cover all of the most important municipal questions in a most thorough and practical manner.

### Garbage Collection and Disposal.

[Full text of an address delivered by Hon. J. J. Williams, Mayor of Memphis, Tenn., before the Convention of the League of American Municipalities, Syracuse, N. Y., September 19-22. Now first published.]

Gentlemen:

To me has been assigned the subject of garbage collection and disposal. Much could be said on a question of such vital importance, but I shall endeavor to be brief.

As to the collection of garbage, I will only say that the system of doing this by contract has proved unsatisfactory and expensive. It is most economically and effectually done by municipalities themselves.

The character of the wagon or cart used will depend upon local conditions and local ordinances governing this department. If the citizen is allowed to put swill and liquid waste into the garbage receptacle, then strong, water-tight, iron carts with covers will be necessary. If, on the other hand, he is prohibited from putting any liquid with the garbage (the liquid portion going into the sewers), then an open, much lighter and less expensive cart, with wooden body, answers our purpose perfectly well. All garbage should be collected and removed once a day. It will then never become very offensive, and can be carried through the streets without giving offence.

The question of how to dispose of the kitchen and other waste of our cities has been much and earnestly discussed by sanitarians for some years past, but within the last few years has attracted more attention than ever before, and in some of the states has been the subject of important legislation. There are few questions of more vital importance to the health of our cities and towns than the question of handling and disposing of their waste. Some of our largest, most prosperous and best regulated cities have, up to this good day, been unable to solve this important problem in a manner at all satisfactory to themselves. One of the highest considerations to every citizen should be his health and that of his family, and it should be the first and highest duty of public servants to foster and aid, by every means in their power, efforts looking to the preservation and betterment of the health conditions of the people they represent.

It would be difficult to overestimate the disease-breeding and death-dealing power of even the kitchen waste in our densely populated cities, if allowed to accumulate, decompose and pollute the air we breathe, the water we drink, the food we eat, and even the soil we live upon.

We now come to the important question: How shall we dispose of this dangerous matter in a sanitary manner? Four methods have been, and, I must admit, are still in vogue:

First—The semi-barbarous system of dumping it into low places in the suburban portions of the cities.

Second—Dumping it into rivers, or small adjacent streams of water.

Third—Reduction works.

Fourth—Cremation.

The first plan suggested cannot be too earnestly condemned. To call this "disposal of garbage" is a misnomer. It is not disposed of by this method, but merely collected and carried from the thickly populated portions of the city, to be dumped on the unfortunate residents of the suburbs, there to decompose and pollute the air, water, and even the earth. I am sorry to have to admit that this system is still in vogue in some of the largest cities in America. It is only a question of time when these cities will pay the penalty of their folly. Nay, some of them are now paying the penalty. Their death rate and their reputation for neglect of sanitary laws has checked their growth, depreciated their realty and lost them business. Some of these cities have realized their peril, and, regardless of cost, have risen to the emergency, and destroyed the foe that had them by the throat, and threatened their very existence, and are now reaping the benefits conferred by obedience to the laws of

health as taught by modern science. Other cities are now earnestly considering these problems, and will be forced to similar action, or they are doomed. This picture is not a theoretical one, but its truth can be verified by statistics.

Second—Dumping our garbage into rivers, and especially small streams, has many objectionable features. It does not dispose of it, because the current carries it against the shore; the receding waters leave it exposed to the air and sun's rays; it decomposes and pollutes both air and water. Not only the offending town or city suffers, but they send their filth down streams to pollute the air and water of the population below them. This system has not even the recommendation of being inexpensive, as I shall show later.

Third—The so-called reduction or utilizing system: It is a recognized fact that a considerable proportion of the waste of cities has some commercial value. The knowledge of this fact has, for years past, led to various experiments designed to utilize that portion which had a value, and otherwise dispose of the useless portion. To this end large and costly reduction works have been built, with the hope that the product of these plants would vastly cheapen the collection and disposal of the garbage. These hopes have not been realized, and, from a financial standpoint, these plants have proven failures, chiefly because their output commands a very low price in the market. From a sanitary point of view they have proven worse than failures. The air for miles and miles around them is so contaminated that the courts and law-makers have been appealed to, and have, as a rule, given relief to the sufferers by abating the foul, disease-breeding business. I may mention here that, if for no other cause, the laws should prohibit these establishments, because it is degrading and inhuman for human beings to spend their days in such an occupation as assorting the filth of our cities.

Fourth—Cremation: For years sanitarians have recognized fire as the ideal destroyer of the waste of our cities. The great obstacle was the cost. The ingenuity of more than one inventor was taxed with this problem. The problem was to destroy the garbage in a sanitary way, and at a cost within the reach of the people. Year by year improvements have been made, until to-day we can demonstrate that this cremation can be effected in the heart of our cities in a perfectly sanitary manner without giving offense to any one, and at a less cost than hauling it to the suburbs or to the water courses. This last statement may seem startling, but it can be demonstrated by actual figures in my own town, where every pound, not only of garbage and kitchen waste of all sorts, but the refuse of the merchants, such as condemned vegetables, fruits, melons, eggs, etc., is burned, without the slightest odor and without being offensive to the nearest neighbor.

In explanation of the low cost (less than hauling to the river), I will explain that this is due to the fact that our four crematories are spotted through the city, and so located that the saving by "short hauls" is considerably more than the cost of cremation. If this is true in Memphis, it certainly must prove true in larger cities, where the garbage is hauled many miles to a common dump or boat or river, as the case may be.

To those who may be interested, I invite a careful examination of the conditions as they exist in Memphis, where we have made the experiment, and can now give you the results.

#### A Plea for the More Comprehensive Study of Refuse Disposal from a Municipal Standpoint.

[Full text of an address delivered by William Creighton Woodward, M. D., LL.B., Health Officer, Washington, D. C., before the convention of the League of American Municipalities, Syracuse, N. Y., September 19-22. Now first published.]

Mr. President and Gentlemen of the Convention:

There are but few of the larger cities of this country which have not recently taken part in the search for the best method of collecting and disposing of garbage. Committees have been sent out from this city and from that to examine crematories and reduction plants and to report upon them, but as a rule the members of such committees have had no previous experience in such matters; they have been entirely unfamiliar with the subject at the outset, and unfortunately most of them have discontinued their study of it as soon as they have signed the committee's report. Sel-dom, if ever, has a city sought some one familiar with the details of the subject and

paid him to study the needs of the community and to devise for it a scheme for the collection and disposal of garbage. As the result of the studies of local officers, combined in many cases with plausible arguments of interested parties, various communities have installed devices for burning or for utilizing such material, in some cases only to abandon them after a few years, or possibly after a few months, either to return to the cruder methods which formerly prevailed or to try some new and more tempting plan. The subject is of vital importance, and interest in it is widespread; but, unfortunately, the situation with reference to the work to be done has been such that each community has worked almost alone.

The necessity for some systematized method of disposing of the wastes of cities is being made more and more apparent by the increasing density of population and by the unusual growth of suburban communities. The increased population increases the amount of waste to be cared for, and the surrounding of the city by zones of handsome villas and cottages reduces the area available for its disposal in the primitive fashion which has heretofore prevailed. But notwithstanding the increased difficulty in effecting the proper disposal of such material; in spite of the greater likelihood of nuisance arising from it; and regardless of the imperative demand for the treatment of such matters in a sanitary manner, in how many cases are the efforts of the city limited to the removal of only such material as is grossly offensive to sight or smell, leaving each householder to get rid of the rest as best he can? The first refuse toward the systematic removal of which the attention of a growing city of to-day is usually directed, is the liquid waste which we know as sewage; it has come to be looked upon as a matter of course, and as a necessity, that the community as such should provide sewers for the proper disposal of such material. Next in the order of progress garbage and dead animals are removed at municipal expense. And later, and only in our most thoroughly organized cities, does the municipality remove and dispose of the contents of privies and cess-pools, ashes and general refuse. If a city cannot remove all of its waste this order of evolution is about as good as could have been devised, except that from the standpoint of present knowledge we should be inclined to regard some scheme for the removal of the contents of privies and cess-pools, when such devices cannot be done away with, as a necessary adjunct to the sewer system, and one which might well precede even the collection of garbage. But the bulk of garbage, which exceeds that of night soil even in an imperfectly sewered city, is probably the main reason why the public collection of garbage has generally preceded the collection of the contents of privies and cess-pools.

I do not desire to make a plea for the public collection of night-soil, or of ashes, or of general refuse, or of any other element of the refuse of a community. But I do most earnestly urge with whatever strength I can command, the collection of this entire mass of waste by the municipality. And if I can in any way, and to any degree, impress upon this meeting the importance and advantages of such a collection, even to the extent of inducing some of those present to investigate the matter, my efforts will not have been in vain. I cannot state the case more forcibly than in the words of Sir Robert Rawlinson: "The foundation of all sanitary science is scavenging; and if I were asked what is the more important feature in sanitary science, I would repeat again scavenging. Your sewers, your drains and water supply are all secondary considerations if scavenging is neglected. \* \* \* And I say, as a last word \* \* \* mature your scavenging arrangements and make them perfect."

There are, I believe, two chief reasons why a city should undertake the removal of the wastes of its citizens: First, because by doing so it will promote their comfort and health, and, second, because it will save their money. Argument is no longer necessary to prove that cleanliness is conducive to good health, both municipal and individual; nor to demonstrate that the presence of filth is a cause of discomfort even aside from its influence on health. And it is a business proposition not requiring proof, that the collection of all refuse by one agency will permit a more economical and effective use of employees, horses and plant than can be secured when the same work is done by several hundred more or less unintelligent individuals working independently of one another. I shall not weary you, therefore, with an array of figures to prove the advantages of municipal collection from the standpoint of sanitation and economy. Nor shall I urge you to return to your homes and to inaugurate forthwith public scavenger services such as I have suggested, for there must be much study by the city, and possibly by the

state, before effective work can be done. There have been household wastes to collect and to dispose of for hundreds of years, and at the present time millions of dollars are spent annually for this purpose, yet there appears to be no other function of municipal life, in this country at least, so poorly organized as the collection and disposal of refuse, nor any other on which so little accurate information can be obtained. I speak now of the general refuse of the community, not of any one of the items of which it is composed.

As an illustration of such disorganization let us consider for a moment the conditions which exist in my own city, Washington, the beautiful capital of our great and growing nation. The removal of refuse from the streets is effected under contract, under the supervision of the department of street and alley cleaning. The material collected is deposited on low lands. Garbage is collected under contract, under the supervision of the health department. It is deposited on waste land along the shores of the Potomac river some miles below the limits of the District of Columbia. When the river is frozen the garbage is burned. Within the past six years such material has been disposed of by reduction and by cremation, and now we have reverted to the more primitive method. There are a few licensed collectors, chiefly for the accommodation of hotels and other like places, who feed to hogs the material which they collect. Dead animals also are collected under contract, under the supervision of the health department. Horses and cows are utilized for their hides and for the manufacture of fertilizers. Some of the smaller dead animals are likewise disposed of, but most of them are removed along with the garbage. Ashes are taken away at the expense of the householder, under the supervision of no one in particular. There is no system of licensing collectors, nor any restriction as to time and manner of removal and transportation. The ashes, which are not blown over citizens while being taken out and carried away, are deposited on low land. Poor colored men, with poorer wagons and poorest horses, do most of the work. The miscellaneous trash which accumulates about houses, stores, manufactories and offices, such as waste paper, cast-off clothing, broken bottles and crockery, old tin cans, etc., is disposed of at the expense of the occupants in the same manner as ashes. The places of deposit are frequently the sources of nuisance, chiefly by reason of the fires which are lighted and smoulder on them. Contents of privies and of cess-pools are removed at the expense of the householder as often as necessary. The material removed is carried down the river on scows and deposited in pits on waste land some distance below the city. Manure from stables is removed at the expense of the occupant as often as he thinks desirable. It is used on neighboring farms as a fertilizer. Much of it is carried down the river on scows; the rest is removed in wagons. There are no regulations governing the time or manner of removal or of transportation.

Could a more thoroughly disjointed scheme for the removal of the wastes of the city be devised? None of it except the contents of manure pits and a part of the dead animals saved. Hardly two kinds of refuse collected under the supervision of the same office. There is no system of licensing private collectors of material other than garbage and night-soil. None of them except collectors of garbage and night-soil are under any restrictions as to time and manner of doing their work. No information is available as to the value of the material collected, and, of course, none as to how much of value might be recovered and the best way of doing it. Yet how many cities are better off in respect to these things than is Washington? Some, of course, but probably not many.

What is the result of this lack of organization? That it is grossly extravagant cannot be doubted, but as a part of the expense is borne by numerous householders, and paid out by them from time to time in dribblets, the exact measure of extravagance cannot be ascertained. But the citizens suffer the loss just as truly as if the payment were made out of the city treasury. The result from an administrative standpoint is that the city is clean only in spots—the poorer, more over-crowded sections, where cleaning is most needed, are not cleaned—and doing the work is in itself almost as great an annoyance, even if less injurious to health, than leaving it undone. The result from a sanitary standpoint is best illustrated by comparing conditions as they exist with reference to garbage, which is collected at the expense of the city, and night-soil, which is collected at the expense of the householder. As the removal of garbage costs the citizen nothing (for he must pay his taxes whether the garbage be removed or not) he promptly notifies the health department if it remains



on his premises longer than it should, so as to secure its removal. As it is removed by a representative of the city, if it be properly cared for by the householder the defects are promptly discovered and remedied. On the other hand, the removal of night-soil must be paid for in cash by the householder every time it is effected; therefore it appears to be to his interest financially to have it removed as infrequently as possible. As a result those careless of the requirements of law deposit it in public sewers whenever an opportunity presents itself; if that cannot be done, it may be buried in the yard or on some neighboring lot. When privy boxes are full, the machinery of the health department must be put into operation to secure the removal of their contents, thus involving additional expense upon the community by rendering necessary an increased number of inspectors. Defective privies are discovered only upon complaint or in the slow course of routine inspection, and therefore may exist some time before receiving attention. The difference between cleaning the streets, which is done at public expense, and cleaning cellars and back yards, which is done at the expense of the householder, is equally striking. The citizen reports promptly the failure of the contractor to clean the street in front of his residence, because he wants a clean street and it costs him nothing to get it, but even while he is complaining of the condition of the street he is allowing the dirt to accumulate on his own premises because he must pay out dollars and cents to have it removed. And when the nuisance for which he is responsible has become unbearable, or when he has been notified by the health department, he cleans up, and the man whom he employs to assist him probably smuggles much of the dirt to some vacant lot not far distant. This illustrates what may be done, and what not infrequently is done. The intelligent, law-abiding citizen, in Washington as elsewhere, keeps his property in good sanitary condition, and then suffers from the neglect or wilful wrong doing of his more ignorant and careless neighbor.

What is the remedy? Surely the collection of all refuse by the municipality without immediate expense to the householder. The details of the scheme must be filled in through the efforts of such men as make up this association. Experiments must be made. Refuse of all sorts must be collected and analyzed mechanically and chemically in order to determine the quantity and quality of each of the ingredients of which it is ordinarily composed, for until these are known we shall be without a guide to determine the efficiency of any system of disposal. Machinery must be constructed and tried, and altered and tried again, and taken to pieces and rebuilt, until we know what can be done on a practical working basis, and what is the most economical way of doing it; and the results—the cost of production and the nature and value of the product—must be ascertained and recorded with scientific accuracy. Various schemes for collection must be tried in order to determine their relative efficiency. Garbage must be collected alone, and then when it has been mixed with ashes and general refuse, it must be collected when it is kept on the premises of the householder, and again when it has been set at the curb line; it must be collected during the day time, and again at night; systems of notification by the householder must be tried; various forms of vehicles must be experienced with. The relative efficiency and economy of sweeping the streets by hand and by machine must be determined; and the value and economy of flushing as a means of cleaning streets and alleys must be ascertained. If refuse is to be collected by private collectors some system of licensing must be devised, and the hours of collecting, and the method of disposal to be employed by such collectors, must be determined and regulated. And, finally, some equitable system of taxation must be formulated so as to meet the cost of the work.

An experimental investigation into the subject of refuse disposal will require money. It will require, moreover, legal authority on the part of the person or persons conducting it to enable them to regulate the care of refuse by the householder and to enforce his co-operation during the progress of the investigation. We cannot look, therefore, for the solution of the problem through individual effort. And in view of its magnitude we may well ask, "Shall such an inquiry be conducted by the city? Shall each city conduct such an investigation, and thus duplicate the work of every other city?" Undoubtedly, in the end, each community will have some work to do to adapt any general scheme of refuse disposal to local conditions, but the duplication of work such as will occur if each place proceeds independently of all others, is wasteful of energy and money, and cannot be productive of the best results; it will amount to a large number of beginnings,

with not one of those who start ever to reach the goal. Let cities combine to do the work. We cannot look to the general government for help, for, strange as it may seem, there is no department or bureau of it having oversight of public sanitation. But many of our states have different boards of health, which, either alone or in conjunction with other state boards, might well investigate experimentally the subject of refuse disposal, if provided by the state with the funds and authority necessary for that purpose. Which state will claim the honor of being the first to begin such work?

In conclusion, I would urge this League to take such action as it may deem appropriate to broaden the scope of such investigations of the subject of garbage and refuse disposal as it may make hereafter, and as an organization to use its influence to induce some of the states or territories here represented to provide for such experimental work as has been outlined. I appeal to those present, as individuals, that when they shall have left this meeting and returned to their respective homes, they may devote their power and influence to secure the proper cleaning of their own cities; not the removal of garbage, nor of night-soil, nor of dead animals, nor of ashes, nor of general refuse, but of everything. Let each do his part to inaugurate in his own city sooner or later some comprehensive system of refuse disposal, and we shall see the result ere long in a lowered mortality, and in the increased vitality, and the greater comfort and happiness of our people.

#### Garbage and Other City Wastes.

(Full text of an address delivered by H. J. Gonden, of New York, before the convention of the League of American Municipalities, Syracuse, N. Y., Sept. 19-22. Now first published.)

Mr. President and Gentlemen of the Convention:

It was my anticipation when I promised to prepare a paper for this convention to describe to you the experience of some city where there existed a model system for garbage collection and disposal. I wanted

nearest approach to perfection in this work, so far as my investigation reaches, is found in the city of Richmond, Ind. As far as the collection of garbage, ashes and rubbish is concerned New York city has no cause for complaint, but the perfection of the system ceases at the point where the street department turns the garbage over to a contractor for final disposition. At Milwaukee we also find a very satisfactory system of collection, but their burial of the garbage in the ground is not a final disposition endorsed by sanitarians. At Youngstown and McKeesport they have furnaces to burn the garbage without offense, but the nuisance here comes before the stuff reaches the crematories, as no means are provided for a proper collection. Thus we may continue indefinitely and at every point we will find a fault in one or the other branch of the work.

My investigation of the garbage question covers 37 cities, scattered all over the country. Table No. 1 shows the various ways in which garbage and dry waste are collected and disposed of in these 37 cities.

The table shows a lamentable lack of uniformity in methods of doing the work. Five of the 37 cities have no public provision whatever for the collection of garbage, the householders being left to get it out of the way as best they can. In 18 of the cities the collection of garbage is let to contractors, in 12 it is done by the municipalities direct, in one it is done under contract made privately with the householders and in New York part of the city is covered by contract and part by municipal work.

It will be noted that in more than half of the 37 cities the collection of dry waste is a matter for private consideration, which means that it is neglected. In 13 of the cities dry waste is collected by the municipal departments and in four the work is let by contract.

As to final disposition there are many methods. In 8 of the 37 cities the garbage is reduced to fertilizer and grease, in 6 it is cremated, in 7 dumped on land, in 3 dumped into water, in 3 buried and in 6 fed to swine. In most of these cities the final disposition of dry waste is by tipping.

In connection with this table it is necessary to state that the methods of collection and disposal shown, in most of the cases, are those considered locally to be the

TABLE NO. 1.

Place.	How Collected.		How Disposed Of.	
	Garbage.	Dry Waste.	Garbage.	Dry Waste.
Albany, N. Y.....	No system.	Privately.	No system.	No system.
Allentown, Pa.....	Contract.	Privately.	Buried.	Tipped.
Buffalo, N. Y.....	Contract.	Contract.	Reduced.	Tipped.
Cincinnati, O.....	B'd city affairs.	Privately.	Reduced.	Tipped.
Cleveland, O.....	Contract.	Privately.	Reduced.	Tipped.
Charleston, S. C.....	St. Dept.	St. Dept.	Dumped on land.	Tipped.
Cambridge, Mass.....	Poor Dept.	Poor Dept.	Fed to swine.	Tipped.
Detroit, Mich.....	Contract.	B'd Pub. Wks.	Reduced.	Tipped.
Duluth, Minn.....	No system.	Privately.	No system.	No system.
Davenport, Ia.....	Contract.	Privately.	Dumped in river.	Tipped.
Erie, Pa.....	No system.	Privately.	No system.	No system.
Elizabeth, N. J.....	Contract.	Contract.	Dumped on land.	Tipped.
Fall River, Mass.....	Contract.	St. Dept.	Fed to swine.	Tipped.
Hartford, Conn.....	Contract.	Contract.	Buried.	Tipped.
Kansas City, Mo.....	Health Dept.	St. Dept.	Dumped in River.	Tipped.
Louisville, Ky.....	St. Dept.	St. Dept.	Dumped on land.	Tipped.
Lincoln, Neb.....	No system.	Privately.	No system.	No system.
Lawrence, Mass.....	Health Dept.	Health Dept.	Fed to swine.	Tipped.
Milwaukee, Wis.....	Health Dept.	B'd Pub. Wks.	Buried.	Tipped.
Minneapolis, Minn.....	Contract.	Privately.	Dumped on land.	Tipped.
Memphis, Tenn.....	Health Dept.	Health Dept.	Cremated.	Cremated.
Mobile, Ala.....	St. Dept.	St. Dept.	Dumped on land.	Tipped.
Manchester, N. H.....	St. Dept.	St. Dept.	Dumped on land.	Tipped.
McKeesport, Pa.....	Privately.	Privately.	Cremated.	Cremated.
New York, N. Y.....	St. Dept. & Cont.	St. Dept. & Cont.	Reduced.	Dumped at sea.
New Haven, Conn.....	Privately & Cont.	Privately.	Fed to swine.	Tipped.
New Bedford, Mass.....	Contract.	Privately.	Reduced.	Tipped.
Pittsburg, Pa.....	Contract.	Privately.	Reduced.	Cremated.
Providence, R. I.....	Contract.	Privately.	Fed to swine.	Tipped.
Richmond, Ind.....	Health Dept.	St. Dept.	Cremated.	Cremated.
St. Louis, Mo.....	Contract.	Privately.	Reduced.	Tipped.
Sioux City, Ia.....	Contract.	Privately.	Dumped in river.	Tipped.
Salem, Mass.....	Health Dept.	Health Dept.	Fed to swine.	Cremated.
Toledo, O.....	Contract.	Privately.	Dumped on land.	Tipped.
Wilmington, Del.....	Contract.	Contract.	Cremated.	Tipped.
Wheeling, W. Va.....	Contract.	Privately.	Cremated.	Tipped.
Youngstown, O.....	No system.	Privately.	Cremated.	Cremated.

to show you a practical model, but I have been disappointed in my search for it. American experience in garbage collection and disposal serves to clearly demonstrate a multitude of errors committed, and to point out the means for their correction in the future. It remains for the officials of our cities to provide these means—available as they are.

We find in some cities a thoroughly sanitary method of collecting the garbage, in other cities a thoroughly sanitary method of disposing of it and in cities where they cover both branches of the work in a sanitary manner we discover economical faults. Thus it is that we find no system that as a whole furnishes a model. The

most expedient rather than the best. The table is a striking illustration of the incomplete and unsanitary manner in which this important municipal work is done in this country. The health of our municipalities is not properly protected when only 12 out of 37 cities take onto themselves the work of collecting disease breeding garbage; when 19 out of 37 cities make no public provision for the sanitary collection of germ filled rubbish; when 19 out of 37 cities dispose of their garbage by dumping on land and in water and feeding to swine, and when only six out of 37 cities make proper final disposition of their rubbish.

After a careful study of the experience of various cities and consultations with nu-

merous health officers and sanitary engineers I am convinced of three things in relation to what is commonly termed the garbage question:

First—That ashes and dry waste from city houses, if neglected, become as dangerous to the public health as does neglected organic matter; and that a sanitary system for the collection and disposition of all wastes, including ashes and dry waste as well as swill, should be adopted by every municipality.

Second—That the only economical and sanitary method of final disposition is by cremation.

Third—That the collection and disposition of garbage and dry wastes is a municipal duty which cannot be properly shifted, wholly or partly, to a private contractor.

In his official report for 1897 Dr. Woodward, the Washington health officer, said: "The health of a community depends quite as much upon municipal cleanliness as does the health of the individual upon personal hygiene." The doctor said this in reference to a recommendation he was then making for a municipal system of ash and rubbish collection, taking the position that in order to obtain satisfactory public health protection the government's duty did not end with a sanitary collection and disposal of the garbage only. I believe Dr. Woodward's recommendation was acted upon, and they now have municipal collection of ashes and dry waste in the District of Columbia.

The removal of ashes and rubbish is clearly a municipal duty. While they are not always a nuisance, their prompt and careful collection by the city is essential to municipal cleanliness and economy. Ashes and rubbish come from every household and if they are removed by private arrangement the cost of removal must necessarily be greater to the people than it would be under a systematic collection by the municipality at public expense. It must also be considered that ashes and rubbish become a nuisance unless the householder exercises unusual care in keeping them absolutely separate from any organic matter. In New York, where Col. Waring inaugurated the best system possible for a separation of garbage, ashes and refuse, it has always been impossible to keep house servants and other careless people from throwing old shoes, rags, water melon rinds and organic matter of various kinds into the ash receptacles. Mr. Charles A. Meade, the superintendent of final disposition at New York, in explaining the decrease of 15 per cent. in the amount of garbage collected in 1898 from the amount collected in 1897, said: "The garbage is certainly in the borough somewhere, and the only place I can see that it is possible for it to be is with the ashes."

Nothing has done so much to retard the progress of sanitary garbage disposal in this country as the invention of the various reduction or utilization processes. Every reduction plant demands a money bonus from the city of sufficient amount to more than cover the known cost of cremation. They have been condemned as nuisances in a number of cities, and the fairest example of this type of garbage plant now in operation, that on Barren Island, New York, is a cause for continual and increasingly vigorous complaints. The sinister results of the utilization process, sanitarily, financially and politically, are so numerous that I cannot go into the subject properly in this paper. It is not my burden at this time to arraign all or any of the reduction companies in the country. However, I will make the assertion that wherever a utilization plant has not been pronounced a nuisance it has been located so far from the city that the people could not smell it. Further, a careful analysis of any contract for the reduction of garbage will reveal the fact that it costs the city more than it would cost to dispose of the garbage by cremation.

In a paper presented to the last convention of the American Society of Municipal Improvements Dr. Reynolds, health officer of Chicago, gave some estimates to show that, by the reduction system, the garbage of Chicago could be made to yield from \$280,000 to \$504,000 worth of bi-products in a year. But Dr. Reynolds added to his statement the significant remark that he had been unable to obtain any authentic data of the cost of operating the various reduction plants. Immediately after Dr. Reynolds' paper was read Dr. William C. Woodward, health officer of Washington and an acknowledged authority on the garbage question, took the floor and said:

"I will say that Dr. Reynolds' paper is to me like a dream. I think such conditions as he lays down can only exist in the mind of a man and not in actual experience, and I am afraid his statements are not the result of actual experience, but that his paper is rather an ideal study. Dr. Reynolds presents some very pleasing figures as to the value of the Chicago refuse—very pleasing figures, but are they accurate? They

may be accurate as to the gross value of the garbage. Garbage may be worth, as has been stated, as much as \$2.67 a ton, but what is it going to cost to get that \$2.67 out of it? I believe it will cost very nearly as much as that. The fact that Dr. Reynolds, as he states, has been unable to secure any reliable figures as to the cost of operating the plants, is very suggestive. It would be a very unwise policy to work a mine which contained valuable minerals where the amount of the mineral was not equal to the cost of getting it out, and I do not believe it will pay to work garbage that only contains a value which is less than the cost of getting the value into marketable shape."

Dr. Woodward's contention that it will not pay to work garbage that only contains a value which is less than the cost of getting it out is a matter of first interest to the contractor and of secondary interest to the municipality. We have yet to learn of a city that has undertaken the utilization of garbage as a municipal commercial venture. All the utilization plants in existence are owned and operated by private contractors, who receive from the municipality a bonus in excess of the amount it would cost the municipality to burn its garbage. New York city pays 65 cents a ton for the reduction of its garbage, St. Louis pays \$1.80 a ton. Every city where the reduction process is in use has to pay more for the "utilization" of its garbage than it would have to pay for the absolute destruction of it.

The success of the cremation process has been demonstrated in this country. There are garbage furnaces in operation in perhaps more than fifty cities, and the evidence of their sanitary and economical success is ample. I will not take the time to enumerate the various cities operating garbage crematories, but I will assert, without fear of contradiction, that the cremation process has proved to be by far the most satisfactory from both sanitary and economical viewpoints.

Our health boards are charged with the duty of preventing, so far as possible, not only contagion, but the breeding of all kinds of diseases. Public sentiment would be most emphatically, unanimously and promptly expressed against a proposition to let out the work of quarantining diphtheria, for instance, to private contractors, no matter how close a supervision the health authorities promised to have over the performance of the contract. That a lax system of quarantining diphtheria is any less a menace to the good health of a community than a tardy or otherwise faulty collection or disposal of garbage will not be denied by any physician.

Does public opinion permit the shifting of the heavy responsibilities involved in garbage collection and disposal from the health officers to private contractors, whose chief aim is to make a pecuniary profit on their work? Or does it countenance any division of their responsibilities, so that they may be disclaimed by both the health department and the contractor when fault is found? I am inclined to think that public opinion has not yet been properly expressed on these questions, and when it does find expression it will be found to be decidedly against letting any portion of the work of protecting the public health to private parties and thereby relieving the public authorities of their just responsibilities.

For the contract system the following claims are made:

1. Economy—Because private contractors enjoy the advantage of paying lower wages to labor than municipalities pay, and get more work out of their men.

2. Better Service—Because under the contract system political considerations do not enter into the hiring and discharging of employees, therefore a better class of workmen can be secured.

3. Closer Inspection—Because a municipal department is not likely to inspect its own work as carefully and thoroughly as it will inspect the work of a second party.

In regard to the first claim—that of economy—I dare say that if a contractor hires a man for \$1.50 a day in a municipality that pays its laborers \$2 a day he will get no more work out of that man than he pays for. We hear a great deal about contractors being able to hire men at the market rate, whereas municipalities are required by city ordinance or state law to pay more than the market rate. I am loath to refer to human beings like so much potatoes and cabbage, but the labor that has a market rate must necessarily have a demand to regulate that rate. So long as a man is selling his labor on the open market a permanent position is comparatively valueless to him. When he gets away from the open market and secures a position paying him more than the market rate he is quite likely to place some value on that position and put forth his best efforts to retain it. The man employed by a city at \$2.00 a day

to do work of the same class that a contractor pays \$1.50 for will give the kind of service that one may expect from a man who wants to hold his job.

In this illustration I have used \$2 as the municipal wage rate, and a correspondingly high figure as the market rate, while I am aware of the fact that the larger portion of our cities do not pay as high as \$2 a day for labor. I have used the higher figures because I am somewhat ashamed of cities that pay policemen from \$2.50 to \$3 a day and deny the hard working man the pittance of \$2. The claim that contractors can hire men at lower wages than municipalities can seems to be a good argument against instead of for the contract system. If any city has the opportunity to change 50, 100, 500 or 1,000 \$1.50 a day positions into a like number of \$2 a day positions for its own working men it ought to do so.

As to the second claim—that of better service—experience teaches us that contract work is seldom equal to municipal work. The political bugbear that is supposed to have such a disastrous influence on municipal departmental work has no conspicuous position in the history of our fire and water departments and our public schools and parks, and, despite its reputation for dirt, I don't believe it will appear in the garbage.

The claim that better inspection is secured under the contract system is by no means infallible.

The systems, both for collection and disposal, and the methods of accounting, are so various that out of the thirty-seven cities which I have investigated only ten can be brought into comparison as to the amount of work done and the cost thereof. The ten cities from which I have been able to gather sufficient authentic data for comparative purposes are St. Louis, Louisville, Wilmington, Del.; Charleston, S. C.; Milwaukee, Buffalo, Kansas City, Mo.; Wheeling, W. Va.; Richmond, Ind., and New York. I have arranged the statistics pertaining to the collection of garbage in these ten cities in table No. 2 so as to show in most convenient form a comparison between the contract and municipal systems.

Exhibit A shows the figures for St. Louis and Louisville, where climatic and other local conditions are similar. It is true that St. Louis has nearly three times the population of Louisville, but this fact only strengthens the conclusions that will be drawn from the comparison, because St. Louis, having the greater population and amount of garbage, ought to show the lower cost of collection, per capita, and per ton, which it does not. The strong point shown by this exhibit is that Louisville, under the municipal system, collects the garbage, ashes and rubbish at a less cost, per capita and per ton, than St. Louis, under the contract system, collects the garbage only, after leaving the ashes and rubbish for private householders to dispose of as they please. In considering the figures in this exhibit one must always bear in mind the fact that the figures for St. Louis cover the collection of garbage only, while those for Louisville cover the collection of garbage, ashes and dry waste. In both cities collections are made daily all the year round. In St. Louis, under contract, 69,634 tons of garbage were collected last year at a total cost of \$99,673, or \$1.43 per ton. In Louisville, under the municipal system, 53,312 tons of garbage, ashes and dry waste were collected last year at a total cost of \$32,771, or 60 cents per ton. The difference in the cost per ton is 82 cents in favor of Louisville and the municipal system. The per capita charge is one cent more in St. Louis for garbage collection alone than it is in Louisville for garbage, ash and dry waste collection. No figures are presented anywhere in this table to show the cost of final disposition, but it is interesting to remark here that St. Louis pays \$1.80 per ton to a reduction company to "utilize" the garbage. In Louisville the final disposition is by dumping on lowlands.

Exhibit B brings into comparison two cities where everything—garbage, ashes and dry waste—is collected at public expense. In Wilmington the collection is separate and by contract; in Charleston it is joint and by the municipality. The Wilmington contractors are paid \$19,300 for the collection of 14,390 tons, or \$1.34 per ton, while it costs the city of Charleston only \$11,604 for the collection of 14,466 tons, or 80 cents per ton. Here again the difference in the cost per ton is in favor of the municipal system, this time being 54 cents. The conclusion in favor of municipal work in this case is strengthened by the fact that, while the per capita collection is larger, the per capita cost in Charleston is much lower than it is in Wilmington.

In Wilmington the garbage is finally disposed of at a crematory owned and operated by the city. At Charleston it is dumped on outlying marsh salt lands. Dr. Holsbeck, the health officer of Charleston,



says: "Our garbage is usually an indiscriminate mass of swill, ashes, waste, branches of trees, etc., and it is usually carried out of the city every day before noon. In the afternoon the carts are employed on other city work. We formerly used the contract system, but we find much more satisfaction in owning and controlling our carts."

Exhibit C shows Buffalo and Kansas City in comparison, the former city with the contract system and the latter with municipal work. When all local conditions are considered the showing in favor of municipal work made here is all the more pronounced. In Kansas City the collections are made more frequently than in Buffalo, the population of the district covered by the collection is not so dense and the hauling is more difficult on account of the numerous heavy grades. In fact, when local conditions are considered it seems that the cost of collecting garbage in Kansas City should be more than it is in Buffalo, but just the reverse is true.

The table shows that about the same amount of garbage per capita is collected in both cities, and that the cost, per capita, in Buffalo, under the contract system, is

two blocks of the court house, near the centre of the city.

Exhibit E brings into comparison the contract and municipal systems applied to one city. Until about the middle of 1897 the work of collecting and disposing of Milwaukee's garbage was done by contract. The contract that then expired was made in 1892 and provided for the collection and sanitary disposition of all the garbage of the city for \$68,000 for the first year and an additional \$2,000 each succeeding year, making the cost of the work during the last year of the contract \$76,000. In the summer of 1893 the health officer of Milwaukee was burdened with complaints arising from the non-collection of garbage. Dr. Kempster, who was then health commissioner, made a careful investigation of all complaints and found that the contractor was violating the provisions of his contract every day. He notified the contractor almost daily of the defects in the method of collection, but complaints continued to increase in number until the health commissioner on July 9th, 1894, felt obliged to report the matter to the council. In this report Dr. Kempster said: "In many places in the thickly settled part of the city garbage is not col-

supervised by the municipality. The Milwaukee contractor was not only at fault in making the collection, but also violated his agreement as to final disposition. The contract provided that the garbage was to be transported by boat to the contractor's reduction plant a few miles north of the city, where it was to be reduced in a thoroughly sanitary manner. In 1896 numerous complaints from fishermen and others that garbage was being dumped into the lake and washed up on the shore were received. After making a personal investigation, the health commissioner reported that "between August 1 and August 5 there were 48 carloads of garbage, just as it was collected from the city, emptied into the lake at the contractor's plant." A health department inspector had accompanied every boat load of garbage to the plant to see that it was not dumped into the lake, but after he had returned with the boat, the cars upon which the garbage had been loaded were run out to the end of the pier and dumped. Here is an instance where we see the fanciful commercial value of garbage ruthlessly thrown away.

On August 25th, 1897, when the contract expired, the health department began the

TABLE NO. 2.

## EXHIBIT A

PLACE	POPULATION	FREQUENCY OF COLLECTION	AMOUNT OF GARBAGE COLLECTED ANNUALLY TONS.	AMOUNT OF ASHES AND DRY WASTE COLLECTED ANNUALLY TONS.	ANNUAL COST OF COLLECTING GARBAGE	ANNUAL COST OF COLLECTING ASHES AND DRY WASTE	COST PER CAPITA	COST PER TON	TONS OF GARBAGE PER CAPITA	REFERENCES
CONTRACT ST. LOUIS, Mo.	623,000	Daily All Year	69,634	Not Collected By City	\$99,673	Not A Public Charge	\$.15 <sup>x</sup>	\$1.43 <sup>x</sup>	.11 <sup>x</sup>	GARBAGE ONLY.
MUNICIPAL LOUISVILLE, Ky.	225,000	Daily All Year	53,312	INCLUDED IN GARBAGE	32,771	INCLUDED IN GARBAGE	.14 <sup>x</sup>	.61 <sup>x</sup>	.23 <sup>x</sup>	GARBAGE, ASHES AND DRY WASTE.

## EXHIBIT B

CONTRACT WILMINGTON, Del.	73,000	Tri-weekly - Summer Semi-Weekly - Winter	9,390	5,000	\$12,000	\$7,300	\$.26 <sup>x</sup>	\$1.34 <sup>x</sup>	.19 <sup>x</sup>	GARBAGE, ASHES AND DRY WASTE.
MUNICIPAL CHARLESTON, S.C.	65,000	DAILY ALL YEAR.	14,466	INCLUDED IN GARBAGE	11,604	INCLUDED IN GARBAGE	.17	.80 <sup>x</sup>	.22 <sup>x</sup>	GARBAGE, ASHES AND DRY WASTE.

## EXHIBIT C

CONTRACT BUFFALO, N.Y.	370,000	DAILY, SEMI-WEEKLY AND WEEKLY	27,506		\$53,741		\$.14	\$1.95	.07	
MUNICIPAL KANSAS CITY, Mo.	200,000	DAILY, TRI-WEEKLY AND SEMI-WEEKLY	12,639		14,768		.07	1.16	.06	

## EXHIBIT D

CONTRACT WHEELING, W. Va.	38,000	DAILY - SUMMER SEMI-WEEKLY - WINTER	7,450		\$5,500		\$.14	\$.73	.19	
MUNICIPAL RICHMOND, Ind.	20,000	SEMI-WEEKLY	3,935		2,340		.11	.59	.14	

## EXHIBIT E

CONTRACT MILWAUKEE, Wis.	270,000	Tri-weekly	25,000		\$76,000		\$.28 <sup>x</sup>	\$3.04 <sup>x</sup>	.09	INCLUDES FINAL DISPOSAL
MUNICIPAL MILWAUKEE	280,000	DAILY AND TRI-WEEKLY	28,716		61,358		.21 <sup>x</sup>	2.13 <sup>x</sup>	.10	INCLUDES FINAL DISPOSAL

## EXHIBIT F

PLACE	POPULATION	FREQUENCY OF COLLECTION	STATISTICS ON GARBAGE COLLECTION.					ASHES AND DRY WASTES			PER CAPITA CHARGES.		
			USING BROOKLYN CONTRACTORS' FIGURES ON AMOUNT COLLECTED THERE.					APPLYING MANHATTAN PER CAPITA TO BROOKLYN			COST PER CAPITA.		
			AMOUNT OF GARBAGE COLLECTED ANNUALLY PER TONS	TOTAL COST OF COLLECTION PER YEAR	TONS OF GARBAGE COLLECTED PER CAPITA	COST OF GARBAGE COLLECTION PER TON	COST OF GARBAGE COLLECTION PER CAPITA	AMOUNT COLLECTED ANNUALLY PER TONS	COST OF COLLECTION PER ANNUM	AMOUNT COLLECTED PER CU YARD	TOTAL COST OF COLLECTING GARBAGE, ASHES AND DRY WASTES, PER ANNUM	GARBAGE	ASHES AND DRY WASTES
CONTRACT BROOKLYN, N.Y.	1,197,000	DAILY, TRI-WEEKLY AND SEMI-WEEKLY	102,000	\$69,000	.085	\$.67	\$.057	71,820	\$1.17	1,488,000	\$237,800	1.24	.15
MUNICIPAL MANHATTAN, BROOKLYN	2,049,000	DAILY	124,000	93,770	.060	.75	.045	124,000	.75	2,290,000	843,230	1.11	.36
												308,800	.057
												987,700	.045
													.198
													.255
													.456

just double the cost per capita in Kansas City, under the municipal system. The cost per ton in Kansas City is 79 cents less than it is in Buffalo. The collection at Kansas City is made by the board of health with twenty-five teams and wagons. The wagons are supplied with tight, close fitting box beds, to prevent any dripping on the pavements. All garbage is dumped into the Missouri river some distance from the city.

Exhibit D compares the contract system of Wheeling, W. Va., with the municipal system of Richmond, Ind. The figures show that the per capita cost in Wheeling is 14 cents, while it is only 11 cents in Richmond. The cost per ton for collection is 14 cents less in Richmond than it is in Wheeling. The final disposition in both cities is at crematories owned and operated by the municipalities. Dr. Davis, the health officer of Richmond, says: "The contract system of collecting garbage has been tried in our city and proved a failure; the present method of collection by the city results in the work being well done and there are very few complaints of neglect." The crematory at Richmond is located within

lected three times a week as is required by the contract, but in a very large number of instances it is collected only once in ten days or two weeks and in a still greater number of cases only once a week. I have had several personal interviews with the contractor and he has on each occasion assured me that the matters complained of would be remedied at once. Not only has there been no remedy, but the condition grows worse from day to day and the number of legitimate complaints continually increases. This is a matter of great importance; the foul odors arising from the decomposing garbage will certainly have an unfavorable effect upon the health of the city."

Complaints from citizens lessened for a time after this communication was submitted to the council, but it was not long before the collectors became as lax as formerly, and it seemed to be impossible to cause the garbage to be collected as provided for in the contract, despite the continuous effort of the health department. This indicates that it is not always possible to secure satisfactory service from a contractor even when his work is carefully

work of collecting the garbage and burying it in the ground outside the city. A supervisor was employed with a number of inspectors to see that the work was properly done. An order was issued providing that when a collector failed to perform his duty in a proper manner he was fined 25 cents for every offense. This caused the collectors to look sharply for the garbage that their earnings might not be reduced by fines.

The figures shown in the table for Milwaukee are for the last year of the contract system and the first year of municipal work. In both cases the cost given includes collection and final disposition. We have given the contractor credit for collecting 25,000 tons of garbage during the year, which is probably greatly in excess of the amount of work actually done by him. But even allowing this figure, we find that the collection under the contract system amounted to .09 of a ton per capita, while the actual record for the first year of municipal work shows that .10 of a ton per capita was collected. The cost per capita, for collection and final disposition, was 28 cents under the contract system and

21 cents under municipal operation. The cost per ton is shown to be 91 cents lower under the municipal system.

Exhibit F applies to the collection of garbage, ashes and dry waste in Greater New York during the year 1898. Here we find an excellent opportunity to compare the contract with the municipal system fairly, because the work was done under contract in one part of the city, the Borough of Brooklyn, while it was done direct by the municipality in another part, the boroughs of Manhattan and Bronx.

We will first take up the figures for Manhattan and the Bronx, because they are taken from the official records which are most carefully and systematically kept. We find that the actual amount of garbage collected by the street department in Manhattan and the Bronx during 1898 was 124,000 tons, and the actual amount of ashes and dry waste collected was 2,290,000 cubic yards. The department records show that this 2,290,000 cubic yards of ashes and dry waste were equivalent to 1,207,000 tons. Therefore the proportion of garbage to the total amount of stuff collected was about 10 per cent. The total charges for collection for the year amounted to \$937,700, and 10 per cent. of this sum, \$93,770, represents the cost of collecting the garbage. The cost of collecting garbage is shown to be 75 cents per ton and 4.5 cents per capita. The cost of collecting ashes and dry waste is shown to be 36 cents per cubic yard and 41 cents per capita.

Now we will take up the Brooklyn figures. The contracts in Brooklyn for the collection of garbage and of ashes and dry waste are separate. The contract for garbage covers both the collection and final disposition and amounts to \$120,000 a year. We have deducted from this sum 50 cents per ton, which is considered a fair figure by New York officials, for the cost of final disposition, and this leaves \$69,000 as the annual cost of the collection, when the calculation is made on the basis of 102,000 tons of garbage, which is the amount the contractor reported he had collected. Granting that the contractor really collected 102,000 tons of garbage, the cost was 5.7 cents per capita and 67 cents per ton. Therefore, according to the contractor's figures, the cost of collecting garbage in Brooklyn was 8 cents per ton less than it was in New York, while the per capita charge was only a trifle over a cent more.

However, the figures for Manhattan and the Bronx, being taken from carefully kept records, must be reverted to in order to show that the Brooklyn contractor has been deceiving the city. Here we will proceed to point out a fraudulent practice which is common in the history of garbage contract work in this country. The records show that in Manhattan and the Bronx, with all of its large hotels, apartment houses and densely populated tenement districts, the street department collected .060 of a ton of garbage per capita. The Brooklyn contractor reports that he collected 102,000 tons or .085 of a ton per capita, which is .025 of a ton per capita more than was collected in Manhattan. The falsity of this report is obvious to all, and especially so to those who are familiar with the local conditions. Any Brooklyn householder will tell you that the garbage collection in that borough is tardy and incomplete, while most any householder in Manhattan will praise the garbage collection system of the municipal street department.

We will now allow that the Brooklyn contractor collected as much garbage per capita as was collected in Manhattan by the street department, which is .060 of a ton. This amount per capita for 1,197,000 people amounts to 7,820 tons. Now deduct 50 cents per ton for final disposal and we get \$35,910 as the amount to be allowed for that item, which must be deducted from the total amount of the contract, \$120,000, leaving \$84,090 to represent cost of collection. This latter amount divided by 71,820 tons gives us \$1.17 as the cost of collection per ton. Therefore, instead of the cost of collection per ton being 8 cents less in Brooklyn than it is in Manhattan, we find as a matter of fact that it is about 42 cents more. This calculation, by the way, is made on a basis that is extremely generous to the contractor.

In the table we have given the amount of ashes and dry waste collected in Brooklyn at 1,488,600 cubic yards, which is the contractor's report. This makes a per capita collection of 1.24 cubic yards for Brooklyn against a per capita collection of 1.11 cubic yards in Manhattan. That the ash and dry waste contractor in Brooklyn has been making reports as false as those of the garbage contractor is apparent, when it is seen that he would have us believe that the per capita collection of this material was greater in Brooklyn than in Manhattan. I have not taken the trouble to reduce this item to a fair estimate, as I have done with the garbage item. I don't

think there is any danger of any one believing that the collection of ashes and dry waste in Brooklyn is more searching and nearer perfection than it is in Manhattan, or that the cost of collection, per cubic yard, is truly less than one-half of the cost of the same work in Manhattan. I have no doubt that a careful investigation would show that the per capita amount of ashes and dry waste collected in Brooklyn is less than 75 per cent. of the per capita amount collected in Manhattan.

The solution of the whole garbage question is a very simple matter for any city. First, reconcile your minds to the fact that the protection of the public health is more important than the saving of a few dollars. Then familiarize yourself with the history of the contract system as applied to this work in this country and you will come to the conclusion that in order to have this work properly done it is necessary for the city to shoulder its just responsibility and do the work itself. Then employ an honest and competent sanitary engineer to map out the work of collection and estimate its cost. Then turn the work over to the health department, where it properly belongs, together with an appropriation sufficient to cover the engineer's estimate. Finally, don't attempt to make the disposition a commercial enterprise, at the cost of the health of your people.

### Special Assessments for City Work.

[Full text of an address delivered by Hon. J. A. Johnson, Mayor of Fargo, N. D., before the Convention of the League of American Municipalities, Syracuse, N. Y., September 19-22. Now first published.]

Mr. President and Gentlemen of the League of American Municipalities:

The subject assigned to me, viz., Special Assessments, is so vast that it will only be possible to touch upon the subject at this time. The first law authorizing the making of special assessments that I have been able to find was in 1427, under the reign of Henry the VI. That law authorized the appointment of a commission to construct "walls, ditches, gutters, sewers, drains, etc.," and to apportion the expense upon all whose lands were benefited thereby. The act of 1427 was amended in 1667 and greater powers vested in the commission. In the act of 1667 paving of streets was also included. The acts of 1427 and 1667 were again amended in 1672 and 1708; each time the principle of special assessments was recognized and the powers of the commission enlarged. I have not been able to find that any changes were made in the laws quoted until 1855, though there no doubt were some. In the latter year great changes were made, and again in 1775, 1882 and 1890 still greater powers were conferred on the municipalities for special improvements, with power to levy special taxes in payment for such improvements, such taxes being payable in all cases by the parties owning lands that had been benefited by such improvements.

In France the first that we find that pertains to special assessments was in 1672, when by a decree of the Council of State it was ordered in the case of widening and straightening of a dark and crooked street, the owners being compelled to bear the cost in proportion to the benefits received. In 1855, in the construction of a quay in the city of Lyons, the owners adjacent to and benefited by the construction of the quay paid for the improvement. Again in 1854 and 1855, in the erection of works on the lower Seine, where large tracts of land were reclaimed, the owners of the property paid the expense of the erection of the works that the government had constructed for their benefit.

Laws pertaining to special assessments in the various German states were vague and conflicting until 1875; since that time the laws have been so as to authorize municipal corporations to make needed public improvements, such as paving, sewers, water works and other works of like nature, and where certain localities were to be benefited the tax or assessment must be paid by the owners of the property benefited by such improvement. Before any improvement can be made on which special taxes are to be levied the same must be made public, and property owners can file protests against such improvement and have a hearing before the proper tribunals. Of other European countries I will not take up your time to discuss; most of them are meagre and follow after such laws as have been cited.

The origin of special assessments in the United States is more a matter of speculation than fact. Some claim it to be inherent in the principle of self-government, while others claim that it arose out of the natural fairness, or justice, or consider-

ations in equity. The probable facts are that it was borrowed from England. In 1691 the province of New York enacted a law similar to the English law extant prior to that date. It remained on the statute books of New York inoperative until 1787, when it was amended to suit the then existing conditions, though very little was done under it. The mayors and aldermen seemed to be reluctant to use the power vested in them for making improvements where special taxes were to be levied to pay for same. It was not until 1807 that a law was passed by the Legislature of New York creating a commission with exclusive authority to lay out streets, squares and public roads within certain prescribed territory, with power to assess the cost of opening such streets, squares and public roads to the owners of the property benefited thereby. In 1813 the law that had theretofore applied to the city of New York was extended to include the cities of Albany, Hudson and Schenectady. Of the four cities named, the charter of New York was the most carefully drawn and gave that city greater powers than either of the other cities named. It provided for two separate procedures for imposing special assessments—one for opening streets and public places where the power of eminent domain was involved; the other for paving and otherwise improving the streets, the construction of wharves, slips, sewers and water works. In case the assessment was too low a reassessment was permitted. In case of dispute as to the correctness of the assessment, arbitrators were chosen to ascertain the facts and report the same, as we now do in cases of arbitration. In 1840 the act was amended so as to prohibit the commission from assessing upon any house or lot more than one-half of its value as assessed for ordinary taxes by the ward assessor. Various amendments were made to the charter of New York bearing on the principle of special assessments until the consolidation act of 1882. The acts as passed by the Legislature of New York from time to time were often contested in the courts of that state, as they have been in all other states where special assessments are recognized. So far as I have been able to learn, the various acts were uniformly sustained by the courts of last resort. In 1865 the Legislature of New York enacted a law authorizing certain municipalities to issue special assessment bonds, which bonds the municipalities could sell, and out of the proceeds pay for the work as it progressed, and the city that issued such bonds would recoup itself from the proceeds of the taxes collected from property benefited and assessed for that purpose.

Massachusetts, in 1658, through its general court, made an order to open a public highway from "Roxbury to Boston Farms," and appointed a committee with power to "judge what is meete satisfaction to the proprietors for the way, and that they have power to impose an equal part upon Boston for such other towns as shall be benefited by the way." The reading of that seems to be as near special assessments for benefits derived as can be gotten at. That order was re-affirmed in 1692 and in 1760, after the great Boston fire, in the reconstruction of the streets the expense thereof was paid by the property directly benefited. Various amendments took place in that state between 1760 and 1865, all recognizing the principle of special assessments for special improvements and enlarging the powers of the municipalities as from time to time it was found by experience to be necessary. In 1865 the Legislature of Massachusetts passed a general law for raising revenue from special assessments.

Rhode Island, Connecticut, Vermont, New Hampshire and Maine all have laws recognizing the principle of special assessments, and they, as well as Massachusetts, have been sustained and have had the approval of their Supreme Courts.

Pennsylvania enacted its first law recognizing special assessments by a province act in 1700. Commissioners or assessors were appointed to regulate the streets and water courses, the pitching, paving and graveling of the same, and to assess the cost thereof in proportion to the number of feet of land benefited thereby. In 1769 the law of 1700 was so amended that the commission regulated the construction of sewers in the city of Philadelphia. The laws authorizing special assessments in Pennsylvania have been amended from time to time since 1769 as the needs and experience demanded, and the constitutionality of the same has been so often sustained by the courts of that state that the doctrine is firmly established there.

Among the remaining states who have laws recognizing special assessments, and whose appellate courts have sustained their constitutionality, may be mentioned the following, where charters were granted authorizing the cities named to make special assessments for special improve-



ments, viz.: New Jersey granted a charter to Newark in 1836, Maryland to Baltimore in 1838, Delaware to Wilmington in 1857, Michigan to Detroit in 1827, Ohio to Cleveland in 1836, Illinois to Chicago in 1837, Louisiana to New Orleans in 1832, Alabama to Mobile in 1866, Texas to Galveston in 1871, Kansas to Leavenworth in 1864, Iowa to Mount Pleasant and Lyons in 1856, Nebraska to Omaha in 1873, California to San Francisco in 1851, Oregon to Portland in 1865. All the states last named have since the granting of the charters cited amended their laws and have enlarged their scope far beyond the original acts. Among the states that have more or less general laws authorizing the levying of special assessments may be named Mississippi, Florida, North Carolina, Virginia, West Virginia, Minnesota, Washington, Utah, North Dakota and South Dakota. In every case where the laws of the states last named have been attacked the courts have sustained the constitutionality of the same.

The Congress of the United States has also recognized the principle of special assessments for special improvements by enacting laws for the District of Columbia, permitting the levying of special taxes to pay for such improvements and compelling the owners of property benefited to pay the expense of the same.

Of the forty-five states in the Union forty states and one territory have laws permitting the levying of special assessments to pay for local or special improvements.

Of the forty states, six have constitutional provisions authorizing the levying of special assessments for special improvements. Of the remaining states, two recognize to the extent of the police power of the states. There is, of course, some difference as to the method of procedure among so many states, but the main principle of special assessments is recognized in them all.

In my own state, North Dakota, we can have no special laws, all must be of a general nature and apply to all cities. Our laws authorize municipal corporations to create improvement districts for the purpose of grading, paving and curbing and otherwise improving streets, and the expense thereof is paid as follows: Eighty per cent. by the property benefited and 20 per cent. from the general fund of the cities. We have a similar law that permits us to construct a system of sewers. For paving and sewers the city council can order either or both without any petition of the property owners effected, provided five-sixths of all the aldermen elected vote in favor of such improvements. We issue "District Improvement" warrants or orders with interest coupons attached. In paying we issue warrants for ten years, with a proviso that they can be taken up at any time after five years from date of issue, thereby permitting us to take them up as our sinking fund may enable us and thus save interest. In sewer work we can issue warrants for twenty years—or less—as the city council may determine; we also reserve the right to take them up after five years, the same as our paving warrants. Any property holder has the right to pay all his assessments for either paving or sewer at any time and thus be relieved from any further assessment.

In Fargo this law has worked to perfection. It has enabled us to make improvements that we could not otherwise have made. We have not only been able to pave and construct sewers on our business streets, but a very large part of the residence portion as well. In 1898 we expended \$108,690, and this year we will exceed that. Yet our taxes for all purposes in 1898 was but \$10.57 per capita, where in some of the large Eastern and Southern cities it was from \$11.02 to \$26.64. It has enabled us to build a town that had over \$9,000,000 wholesale trade in 1898, where our banks on the last day of December last had \$1,659,924.82; where our clearing house last year handled \$14,677,849.08; where the post-office netted the department \$23,505.99; where the Western Union Telegraph Company handled 777,189 commercial messages last year. It has made Fargo the third city of importance in the world as a wholesale centre for farm implements; has given us three of the greatest railways in the United States, viz., the Northern Pacific, the Great Northern and Chicago, Milwaukee and St. Paul, with an equipment and service that is not excelled in any part of the world.

It enabled us to expend over \$500,000 in new buildings in 1898, and we will expend more than that sum this year, and with all this I will say something that may surprise some of you, we have not a place in Fargo where any intoxicating liquors can be obtained; neither have we any gambling houses there, nor do I ever expect to see any there, and I expect to live the balance of my life there.

I am aware that the figures quoted may seem small to most of you who attend this

convention. But it must be remembered that less than thirty years ago the land that Fargo now stands on was an Indian reservation with Sitting Bull as chief in command. Less than a generation ago General Hazen, at that time chief of the weather bureau of the war department, made an official report on the territory that now comprises North Dakota, and in that report he said it was an alkali desert unfit for the habitation of man, scarcely fit for the wild buffalo or the still wilder Indian. Yet the fact remains that less than a generation after that report was made the territory General Hazen criticised so severely produced more than one-tenth of all the wheat raised in the United States with only 3,537,193 acres in wheat out of 47,559,346 acres of its tillable land under cultivation; that the soil in 1898 gave to every man, woman and child in the state over \$350, leaving commercial and manufacturing interests to swell this sum.

#### THE LAW OF SPECIAL ASSESSMENTS.

In the case of the Roosevelt Hospital vs. The Mayor of New York, 84 N. Y., 108, the court said: "Taxes are public burdens imposed generally upon the inhabitants of the whole state or upon some civil division thereof, for governmental purposes, without reference to peculiar benefits to peculiar individuals or property. Assessments have reference to impositions for improvements which are especially beneficial to particular individuals or property, and which are imposed in proportion to the particular benefits supposed to be derived. They are justified only because the improvements confer special benefits, and are only just when they are divided in proportion to benefits."

In the 74th N. Y., page 216, Judge Miller says: "The principle upon which a corporation tax for improvements of real estate is founded is quite familiar and well understood. It is based on the theory that the owner of the property assessed is to receive a benefit corresponding with the amount assessed, and that this is to be paid to meet the cost and expense of the improvement. It is, therefore, of no consequence what the value of the lots may be, provided the enhanced benefit is equal to the assessment."

In the 89th Alabama, in case of the Mayor of Birmingham vs. Klein, page 361, the court says: "A tax, it is said, is a contribution to the general fund; the amount is taken from the individual, and nothing which benefits him individually, as distinguished from the mass of citizens, is given in place of it. He pays, and by the amount he pays is so much poorer than he was before. Not so with an assessment of the class we are considering. The property owner pays it, but in legal contemplation he loses nothing. He receives value for his money in the betterment of the property, and in addition to this, he is benefited to the same extent that all other citizens are, in that the thoroughfare of the city in which his property is situated and in which he probably lives is improved. The authorities almost universally take such an imposition, though confessedly laid under the taxing power, out of the category of taxes and the taxation as to those terms as are employed in organic limitations on legislative power to levy or authorizing the levying of taxes and in general statutes."

#### THE TAXING POWER UNDER SPECIAL ASSESSMENTS.

In the case of the People vs. the Mayor of Brooklyn, reported in the 6th Barber, page 209, the court said: "The people have not ordained that taxation shall be general so as to embrace all persons or all taxable persons within the state or within any district or territorial division of the state; nor that it shall not be numerically equal as in the case of a capitation tax; nor that it must be in ratio of the value of each man's land, or of his goods, or of both combined; nor that a tax must be co-extensive of the district or upon all the property in the district which has a character of and is known to the law as a local sovereignty, nor have they ordained or forbidden that a tax shall be apportioned according to the benefit which each taxpayer is supposed to receive from the object on which the tax is expended. In all these particulars the power of taxation is unrestrained."

In Rhode Island, in the matter of Dorrance Street, 4, R. I., 230, Chief Justice Ames said: "It is evident that it gains even a fanciful or formal support for its existence only when the law is to be applied to the case of one, part of whose land is taken for a street, leaving a part benefited, or to one whose land is taken in one place, he having land benefited in another, in which cases the law provides for a set-off of benefits against damages—the balance either way, only, to be reported only by a commissioner or a jury. We say formal or fanciful only, because it must be evident

that after all the real question is, can there be such a constitutional assessment for benefits upon estates benefited by the improvement? For if there can be, no reason can be given why a man should be excused from his assessment upon one part of his estate really benefited because another part of it has been taken to make the improvement."

Hare on American Constitutional Law, vol. I., page 310, says: "The conclusion from the main current of decisions may therefore be said to be that notwithstanding some apparent exceptions, local assessments are constitutional only when imposed to pay for local improvements, clearly conferring local benefits on the property so assessed, and to the extent of those benefits. They cannot be imposed when the improvement is for the general good, without an excess of local benefit to justify the change."

In 1883, Judge Finch, in the case of the matter of Church, reported in 92nd N. Y., I., page 6, said: "There is no force in the objection that after fixing the assessment district the total expense cannot be assessed upon the property included, but only so much as is actually benefited. That is but another form of saying that the Legislature cannot impose the whole cost upon the area which it decides is benefited to that extent. The case of Stuart vs. Palmer holds that the Legislature may cause local improvements to be made and authorize the expense thereof to be assessed upon the land benefited thereby."

Judge Sharswood, of the Appellate Court of Pennsylvania, in the case of Hammet vs. the City of Philadelphia, reported in the 65th Pa. St., page 146, says: "The original paving of a street brings the property abounding upon it into market as building lots. \* \* \* It is therefore a local improvement with benefits almost exclusively peculiar to adjoining properties. Such a case is clearly within the principle of assessing the cost on the lots lying upon it. Perhaps no fairer rule can be adopted than the proportion of the feet front, although there must be inequalities if the lots differ in situation and depth. Appraising their market values and fixing the proportion according to these is a plan open to favoritism or corruption and other objections. No system of taxation which the wit of man ever devised has been found perfectly equal. But when a street is once opened and paved, thus assimilating with the rest of the city and made a part of it, all the particular benefits to the locality derived from the improvements have been received and enjoyed. Repairing streets is as much a part of the ordinary duties of the municipality—for the public good—as cleaning, watching and lighting. It would lead to monstrous injustice and inequality should such general expenses be provided by local assessments."

Judge Lindsay, in the case of the Broadway Baptist Church vs. McAtee, reported in 8 Bush, page 511, and also in Simpson on Municipal Assessment, page 6, says, in part: "The owners of such estate receive and enjoy very nearly the sole permanent advantages accruing to the city from the construction, repairs and reconstruction of the streets upon which their property may be situated. The general public certainly receives incidental benefits from such improvements; but the benefits to the owners of the real estate are direct, appreciable and permanent. The original improvement enhances the value of lots adjacent to the street improved by making it accessible to the public and attracting trade and population. This enhanced value can be preserved in no other way than by keeping the street in repair and by its reconstruction when too much worn to be longer repaired. Hence, so far as the right to impose this local taxation depends upon the enjoyment by the persons taxed of peculiar local benefits arising therefrom, it seems to us that there is no substantial difference between the reconstruction and the original pavement of the street."

It will be noticed that the two learned jurists just quoted took diametrically opposite sides on the question of repaving when the original paving had been worn out. It will also be noticed that Simpson on Municipal Assessments supports Judge Lindsay; while I have seen no authority that supported Judge Sharswood, though there may be some.

I will only take up your time in quoting part of another decision from my own state of North Dakota. In the case of Rolph & Cadbury vs. the City of Fargo, the unanimous opinion of the court, which was delivered by Chief Justice Corless, and is very exhaustive, and in which a great many authorities are quoted, reads in part as follows: "The owner of abutting property is by this action attacking the validity of an assessment to pay the expense of paving a street in the city of Fargo. He grounds his assault thereon upon the invalidity of the statute under which the as-

assessment was levied. \* \* \* It is not contended that the steps taken by the proper authorities were unauthorized by law. But the broad proposition is laid down by the counsel for plaintiff that the statute is void for the reason that it does not limit the total assessment upon property within the special taxing district to the actual benefit accruing to such district from the local improvement from which the tax is to be levied. \* \* \* When the taxpayer is called upon to contribute for general purposes he is not permitted to challenge the legality of the tax on the ground that he has not received a pecuniary benefit commensurate with the sum he is required to pay. Whence comes the right of the courts to accord him this peculiar privilege in cases of local assessments? It is right here that the fallacy of the cases of the counsel for plaintiff lies. \* \* \* We cannot discover any foundation for those decisions which seem to hold that a local improvement may at the same time as a portion of the expense thereof be not a local but a general improvement. A local improvement is an entirety and therefore cannot be divided. What portion of the expense shall be born by the special district and whether all of it shall be collected therein is a matter of legislative discretion. But the improvement itself is not effected by the decision the Legislature may make. It still remains local, though that body orders that portion thereof shall be collected as a part of the general taxes. It is the fact that it is a local improvement which vests in the Legislature the power to direct that it shall be paid out for local property. This power is not merely the power to order such portion to be collected in the special taxing district as shall be the equivalent of the enhancement of the value of property therein because of such improvement, but to direct that the expense of the improvement as an entirety be collected in a manner different from that in which ordinary taxes are collected. If there is any power at all in the Legislature to prescribe a distinctive mode of collecting the expense of such an improvement, it is as broad as the purpose for which the tax is to be levied. The courts cannot divide it up and say at what point the power ceases; cannot declare that as to any particular percentage of the cost the only mode of levying taxes to discharge the same shall be by a general taxation. How could the courts ever determine what part should be paid out of the general treasury and what part raised by local assessment? What rule would govern them in investigating such a question? And what right have they to dictate where the line shall be drawn? If, as we believe, the courts cannot require that any portion of the expense shall be collected as ordinary revenues are collected, the whole ground falls from under the postulate that the limit of the power of local assessment is the enhanced value of the particular land assessed."

### The Municipal Water Works of Syracuse.

[Full text of an address delivered by William R. Hill, Chief Engineer Syracuse Water Department, before the Convention of the League of American Municipalities, Syracuse, N. Y., September 19-22. Now first published.]

Water is in many respects the most important substance in the world. It covers the greater part of the earth's surface, permeates its interior and is the substance of the clouds above us. In the early ages it was venerated as a substance of which all things in creation were supposed to be made. Hence, wells, fountains and rivers were worshipped and religious feasts and ceremonies were instituted in honor of them or of the holy spirits that were believed to be hovering over them. The ancient Syracusans held great annual festivals at the fountain of Arethusa and sacrificed black bulls to Pluto at the fountain of Cyane. The ancient Romans celebrated the Festival of Fontanalia when wells and fountains were adorned with flowers, and wreaths were cast upon the running streams. The early Egyptians worshipped the River Nile as the God of Fertility and Abundance, and to that deity they offered human sacrifices.

It would be well for modern Syracusans to imitate in a measure the ancient Syracusans and take some notice of the many blessings that they enjoy through their most admirable system of water supply.

Until the year 1892 the water works of this city were owned by a private company. The city then had a population of 100,000, who could humbly bow and acknowledge that they had the poorest and most inadequate supply of water of any city in this country. With its 200 miles of streets it had only forty-two miles of water mains

and the water furnished was unfit for any purpose, except, perhaps, that of navigation. Public improvements of all kinds were delayed; in fact, there was scarcely a mile of good pavement in the city.

The question of municipal ownership and a better water supply had kept the people in a turmoil for a period of at least twenty years and resulted in the formation of many factions. Each faction advocated some particular source and method of supply, and accusing each other of being prompted by selfish motives.

It is to the credit of a few determined men that a necessary law was enacted and a commission appointed in the year 1888 to inquire into and investigate the several sources of water supply, there being no less than eleven recommended which, it was thought, might be made available.

The commission, upon first assembling, was found to be divided, each commissioner having his favorite scheme. They wisely selected Mr. J. J. R. Croes, M. Am. Soc. C. E., of New York, to take charge of the investigation, and I was appointed his principal assistant. Seven months' time was consumed in making the investigation at an expenditure of \$12,000. Upon the report of the engineer the commissioners were unanimous in recommending Skaneateles Lake as the best source of supply.

The question of municipal ownership, with Skaneateles Lake as a source of supply, was submitted to a popular vote at a special election, and resulted in a favorable vote of twelve to one.

A detail of the opposition, trials and struggles of the city to consummate the scheme would fill many pages of history.

The first law permitting the city to use Skaneateles Lake as a source of supply was passed in the year 1889. As Skaneateles Lake was a feeder of the Erie canal the law provided that the city should first obtain the consent of the canal board. Application was made to that board and was met by the stubborn opposition of the canal interests throughout the state, also by the chambers of commerce of New York, Albany, Rochester and Buffalo, and by the authorities of the village of Skaneateles, as well as by the old water company and parties interested in having the city supplied from some other source.

The application was finally relegated by the canal board back to the legislature of 1890. There the contest was renewed with the same opposition, and on the last day of the session of the legislature, when the city was almost despairing, it was startled by the booming of cannons and received the glad tidings that an act was passed permitting it to obtain the waters of Skaneateles Lake.

The opposition was again renewed. Application was made to the attorney general to institute suits in the name of the people to oust the water board from office. Suits were instituted to prevent the city from disposing of its bonds, and to defeat the project by having the law declared unconstitutional. The general term court declared that it was unconstitutional; the case was argued and reargued in the Court of Appeals and a judgment in favor of the city was obtained.

Negotiations with the Syracuse Water Company for the purchase of their plant were then carried on until it was determined that a price could not be agreed upon. The property was then obtained by condemnation proceedings, the award of the appraisers being \$850,000. The award was accepted by both parties, and although it was an amount far in excess of what it would have cost to duplicate the system, still it was a good investment for the city, as the earnings of the plant from January 1st, 1892, to July 1st, 1894, or until the introduction of a new supply, were \$160,000 over the operating expenses and interest on the bonds.

The law contained a provision that the city should acquire or extinguish the water power rights on the outlet of the lake. It was found to be impossible to acquire many of the rights at prices within the bounds of reason and the water board was forced to institute condemnation proceedings. In the course of the trial every point was stubbornly contested and every possible claim made by numerous and able counsel on behalf of the mill owners. The extent of the proceedings is illustrated by the fact that the stenographer's transcript of the record contained no less than 28,000 pages, besides 278 exhibits.

The work of construction was not commenced until the spring of 1892, and with it came renewed opposition. Injunctions were served, workmen were arrested and riots were scarcely averted. During the entire period of construction the opposition took advantage of every opportunity to defeat or delay the progress of the work. They made a strong and determined fight, but at last they were obliged to relinquish.

On the 3rd day of July, 1894, cannon again boomed in our city to herald the first arrival of the water from Skaneateles Lake.

On that day a new era was opened to this city. It was the red letter day that marked our future prosperity. It was the commencement of many improvements, beautifying our city by grading and paving streets, and improving our sanitary condition by the construction of sewers. It made a marked improvement in the general health, greatly decreasing the mortality, and resulted in the establishment of an ideal system of water works in this city.

This assertion can be made for the following reasons: The water is remarkable for its clearness and is of most excellent quality, as is shown by both the chemical and bacteriological analyses. It is good for domestic, laundry and manufacturing purposes. It is freer from bacteria than any other supply that I know of. The greatest number of bacteria ever found in a cubic centimeter of this water was only 26, and the monthly average for the last three and a half years has been but 10 1/2.

Our city is the largest in the United States that acquires and distributes its entire supply by gravity. Skaneateles Lake is at an elevation of 466 feet above the city, is fifteen miles long, about a mile wide, and is 350 feet deep. Our distributing reservoir is at an elevation of 221 feet above the city. This, together with the large sized mains in the distributing system, affords a most desirable pressure for fire protection; in fact, the variation of pressure at mid-day and midnight is hardly noticeable. The system is equipped with sixteen hydrants to each mile of mains, while the general average of other cities in this country is nine to the mile.

Since the installation of this plant the fire insurance rates have been reduced. The reduction equals an amount sufficient to pay the interest on the bonds that were issued for the purpose of acquiring and constructing the water works.

The income of the department since the introduction of Skaneateles Lake water has been sufficient to pay the interest on the bonds and the operating expenses, besides making an expenditure of \$300,000 for permanent construction. And while doing this the water rates have been twice reduced. These reductions saved over \$100,000 to the consumers of water during the last year.

All this is the result of the labors of the promoters of the scheme. The Hon. Francis Hendricks, ex-senator; Hon. William B. Kirk, ex-mayor, and a few determined men, together with the water commissioners, have most nobly done their part, devoted their time and neglected their own private affairs in their efforts to make the great project a success. It is hoped that their labors will never be forgotten by the people of this municipality and that others may be stimulated to imitate them, bearing in mind that no one can accomplish great things unless he aims at great things, and pursues that aim with an unflinching courage and perseverance. What can be accomplished by a few determined men in relation to the establishment of a municipal water works can also be achieved in instituting other municipal improvements.

### Is it Better for a City to Do Its Work by Contract or Day's Work?

[Full text of an address delivered by Hon. George R. Perry, Mayor of Grand Rapids, before the Convention of the League of American Municipalities, Syracuse, N. Y., September 19-22. Now first published.]

Mr. President and Gentlemen of the League of American Municipalities:

The question presenting itself for discussion, that is, as to whether the contract system of performing municipal work is to be preferred to the plan of the city doing the work by the day, is one that presents so many phases that it seems well nigh impossible to find two persons whose views will exactly coincide when considering it. It is one of the problems that is settled by each individual in his own mind, and arguments to support his particular views are always to be found and produced when occasion requires.

To illustrate: A short time ago I had this subject under consideration with a friend. He was of the opinion that a municipality could not do successful street work except under the contract system. "Make contracts after competitive bidding," said he, "and then require good bonds for satisfactory work." This was his only plan for the doing of any sort of municipal work. Then he went on and instanced the manner in which the townships in Michigan do the road work in order to sustain his position.

Most of you are doubtless aware of the manner in which the "road work" is done. The overseer goes the rounds of the township and "warns" the taxpayers to assemble at a certain place and work out the



road tax that is assessed against each of them. Then on the appointed day the taxpayers, men, gather at the appointed place, each provided with a shovel, pick, bar or team and wagon as ordered, and proceed to tear up the roads of the township. This is done under the guise of "improving the highway." But as a usual thing the last condition of that road is far worse than the first.

My friend then insisted that this was a fair illustration of the results that would accrue if a municipality undertook to do its own work of improvement. "For," said he, "in this instance the township not only does its own work, but the people actually interested do the labor."

My friend's argument and illustration may appeal to some as it did to him, for I am bound to admit that he was honest in his opinion, and I feel morally certain that he could not carry into success a job of work for a municipality where the city furnished the material and the labor was paid by the day. His heart would not be in the work and he would be expecting failure.

To me this is the secret of failure or success in the cities attempting to get away from the contract system and do their own work. If the official who would naturally have the charge of the work believes in it the outcome will be successful and profitable. If he does not, stick to the contract system and some day the citizens of that city will elect some one who does believe in doing its own work and paying the city's money to its own citizens.

There is another spectre that arises to bar the way. "Politics" is the cry, and forbidding hands are spread to stop the way of municipal reform. "Why," exclaims one, "if the city attempted to do all of its own work, the party in power would build up a political machine that would perpetuate it forever."

To me this argument is the setting up of a man of straw to be knocked over when the other fellows are in power. What is there in it? Is it possible to assume that in the employment of laborers a political qualification will be required? That no one but Democrats or Republicans, as the case might be, would be allowed to earn the city's money by the honest toil of their hands? If such a system were instituted, how long would it last? We have all of us employed labor, and I do not believe that one of you has ever yet asked a man who drives your horses or digs your ground what his political affiliations were. Yet I will venture the assertion that in one way or another most of us are politicians.

For my part, I have faith enough in myself and my auditors to believe that we would carry into the work of the city the same business methods that we have used in our own affairs, and that "the man with a hoe" would earn his bread with the sweat of his brow and not with the wag of his jaw.

Let us look for a moment at the present plan of doing the work of a municipality. A street is to be improved. An estimate of the cost is made and a certain plan is agreed upon. Then an advertisement is inserted in the newspapers calling for bids to do the work, and contractors submit proposals. The contract for the same is usually awarded to the lowest bidder, and then the city enters into an agreement with the successful bidder.

So far the entire arrangement is purely business, but now there enters into the matter a new factor. The city has thrown all the paper safeguards that legal ingenuity can suggest about the work. The contract says this and the specifications say that and the bond specifies that all shall be done accordingly. An inspector of the work is appointed, and then the city bothers itself no more about the matter.

The contractor has but one end in view, and that is the ultimate profit he expects to receive from the work. With this idea in view, and we cannot blame him for having it, he hires the cheapest labor in the market, and if times happen to be good and labor higher in the local market than elsewhere, he will go abroad and higher them. You will see employed along the trenches and in the excavations the ignorant off-scourings of the four corners of the earth, the chances being that when the season's work is done this imported labor is transferred from the contractors' pay-roll to that of the city's charities.

The contractor buys his materials with a view of having them just good enough to pass the inspector, and when they fall below this standard the inspector is cajoled into allowing them to pass. It usually happens that the inspector is not in the least qualified by previous experience to pass upon the material used, and it is not a difficult matter to persuade him that the material proposed to be used is up to the requirements. I have known of an inspector allowing a contractor on sewer work to use common lime mortar in the

place of cement, because the contractor got him to believe that the lime mortar was better.

At all events the city bears the brunt of the loss, the contractor gets the benefit and the fraud is not discovered until the defects call for expensive repairs. I have noticed but few instances where the contractors have claimed a loss, and in these the contractors presented a bill for extras, which, being allowed, made him whole again.

Two years ago I watched some laborers laying a brick pavement in front of the city hall in my own city. The concrete foundation had been laid and the bricks were all in place. The inspector had been over the work and had marked some of the bricks with a big "O," meaning "out." I noticed a workman come along with his pulling tongs and take out the bricks so marked and then replace them with the marked side down. The water test that had been applied showed that the marked brick were soft. I approached the workman and asked him why it was that he did not take out the brick that were marked out. "Oh," he said, "that does not mean out, that means over."

I was not the mayor of the city at that time, and I had but the interest of the average citizen, and I only cite this as an instance to illustrate the way one contractor tried to save himself some money. I do not think that this would have happened if the city had been doing the work on its own account. The contractor hopes that the pavement will last out the five-year guarantee, and then the city will be obliged to do the repairing.

I have no quarrel with the contractors; I might do the same if I was in their place, but I do insist that the city is not getting its money's worth when it has work done on the contract plan.

The only thing the contractor is interested in is to get the job done and draw his pay with as little cost to himself as possible, and if the work is bonded, to hope that he has done it well enough so that it will last the term of the bond.

The city, on the other hand, is interested in having a job done as well as possible. If it is a pavement, it wants that pavement not for five years, but for all time. A city cannot afford to lay pavements to wear five years and then have the expense of maintenance average 30 to 40 per cent. of the cost each year. We have asphalt pavements laid on the five-year guarantee. They have lasted out the term fairly well, and have needed repairs since, so that they have become burdensome, and something else must be found to take their place.

The contractor in figuring out a job takes into consideration all the elements of chance. He estimates labor at the highest price, and the same with all the materials that he will have to use. He expects that all of the excavation will be hard digging.

If he gets his labor at a lower price, or if the excavation proves to be sand instead of clay, he calls that profit. Now that the city has always to pay for the most expensive job possible, why not have the city take these elements of profit for itself? There certainly is nothing to lose and the possibility of profit.

If the city did its own work, the men employed would receive at least the best going wages, the material used would always be of the best, there would be no object of using deceit in the work, and I believe that in the end there would be a large saving to the city. There is this feature that would come of the city doing its own work. Preference could be given to its citizens and in this way gangs of laborers would not come in from the outside and take the bread out of the mouths of the resident workman.

Last winter my city was troubled somewhat with the freezing of water pipes and it was necessary to uncover some that had burst. In some instances it was found that they had been placed a full foot short of the distance required by the contract.

Minneapolis is a city considerably larger than Grand Rapids, and it had some trouble to get a street paved with brick as it wanted the work done. As a last resort the city concluded to buy material and do the work by the day. Brick were bought of a quality superior to those which the contractors proposed to use—the makers of the brick agreeing to replace any that were defective at the end of ten years' wear—paid the men on the job \$1.75 a day as the least wages, and the work was done. When it was all over it was found that the city had made a clear saving of \$5,400 over the lowest amount bid by any contractor and had a street that was practically guaranteed for ten years instead of five years, as they would have had under the contract system.

This same city laid by day's labor 42,352 feet of water pipe, running from six to twenty-four inches in diameter, at a cost

of \$69,571.00. Taking the average price paid contractors for the same work in my city, the city of Minneapolis saved about 12 per cent. of the amount that the work would have cost us.

Washington, D. C., has also done a certain portion of its work by the day labor plan, and the engineer in a recent report speaks very highly of this plan of work and hopes that it may be extended so as to include all works of construction.

The city of Grand Rapids has done but little work by the day as yet, and it is difficult to say whether our contractors are making a large sum from the city work. In the principal park of the city a macadam road containing 5,737 square yards was constructed at a cost of \$1,491, or about 13 cents a yard. This roadway is an ordinary park road without curbs, and the amount includes all the items of expense, as stone, crushing, hauling, rolling and team work. The best offer from a contractor was \$2,000 for this job. The roadway is a first-class piece of work and is fully equal to any in the city.

The city has been engaged in the erection of a public lighting plant the past year and as usual the work was let out in contracts. I have not been able to get the board of public works in my way of thinking as yet. A contract was let to construct the foundation walls, and when the time came for the erection of the superstructure the contractor for that portion of the work refused to proceed, alleging that the foundation was insufficient. A survey was made and it was found that the wall would have fallen of its own weight had it been left alone for a time. A portion of the foundation was found to be resting on the earth without any grouting under it at all, the cement mortar was so deficient in cement that it was not much better than mud, the wall was not bonded, and taken altogether it was about as shabby a piece of work as one could well imagine. The wall was rebuilt by day's labor, and I will warrant that it will stand as long as the city needs a lighting plant. The inspector on this job was the president of the board of public works. If you gentlemen had seen the workmen tearing down that wall, using shovels to handle the stone and mortar, pulling the wall to pieces with their bare hands, I think that you would have agreed with me that contract work does not give results such as a city seeks.

The question, in my mind, resolves itself into the simple proposition: Is there any profit in the business of contracting? If there is let the city make it, either in a direct saving of first cost, or indirectly in getting better work.

We must remember that the city pays the entire bill for all that the contractor has to supply. It pays the cost of the bond he furnishes. It pays the estimated cost of all the material that enters into the construction. It pays the estimated cost of the labor. It pays the cost of repairs during the period for which the guarantee is made. It pays on top of all a profit of 15 to 20 per cent. of the contract price as a bonus to the contractor for looking after the work.

How much longer are we going to do this? I wish that each city official here would try this one experiment. Your city will have during the coming year a job of work that you can do with your own labor. Say nothing and advertise in the usual way for bids. Reject them all and do the work by hand and then when we meet next year give the result. Such an experiment tried by all of us under diverse circumstances will do more to settle this vexed question than all the theorizing from now to the end of time. I sincerely hope that this suggestion will be acted upon. You can well say that under the conditions that exist in your home city it would not be a success. I only ask you to give it one fair, unprejudiced trial and then give the results all the publicity possible.

### Drainage, Sewerage and Water Supply.

[Full text of an address delivered by Hon. William C. Flower, Mayor of New Orleans, before the Convention of the League of American Municipalities, Syracuse, N. Y., September 19-22. Now just published.]

Mr. President and Gentlemen of the Convention:

Any general discussion of the subjects of drainage, sewerage and water supply in their relation to municipal progress and to the health, comfort and happiness of the residents of large cities, could ordinarily furnish little of novelty or interest to the student of municipal history. These subjects are trite, and have been so often treated by writers and speakers that every layman is familiar with the salient features and importance of these great necessities of modern municipal life.

The city of New Orleans has been far behind her sister cities in the progress she has made in the establishment and development of these great indispensables to healthfulness and comfort. Situated as she is, in a low, flat country, but a few feet above sea level, on alluvial soil, with a water line but little below the surface, she is placed separate and apart from other cities. Topographical conditions exist that are unique. Physical difficulties have stood in the way of the proper treatment of these great municipal necessities that seemed well nigh insurmountable, and as a consequence the city has not made that advance in keeping with her growth and commercial progress. Sewerage and drainage to New Orleans under these peculiar conditions meant the expenditure of so vast a sum of money that until recently the problems confronting the engineer and the sanitarian had remained unsolved.

The people of New Orleans lately voted a tax for public improvements, sufficient to guarantee the issue of fifteen million of dollars of bonds.

The municipal council has by ordinance provided for the thorough draining and sewerage of the city, and made provision for an improved water supply. The State Legislature has by act ratified the plan, and at the general state election to be held in April next a constitutional amendment will be submitted to the people confirming these acts and giving recognition in the organic law to the bonds to be issued.

I have thought, therefore, that a brief review of the conditions confronting us in the accomplishment of these great municipal improvements would not be without interest to those devoting themselves to the elucidation of municipal problems.

The city of New Orleans is the metropolis of the South, and the principal gateway to the sea for the products of the Mississippi Valley. She communicates by land and water daily and almost hourly with all portions of the immense territory tributary to her commerce—a territory whose dependence upon her is as great as her dependence upon it. The intimacy of these trade and social relations is so thorough that the prosperity and particularly the public health of New Orleans are matters of grave household concern to every person in this valley. The sanitary condition of this city has been regarded as a serious question for many years.

The physical and social conditions which have moulded the past history of New Orleans are curious: The city occupies a concave bend of the Mississippi river, from whose crescent shape it derives its name. It fills up this bend on the left bank, and extends beyond until it has attained a continuously built up frontage of 12½ miles. In no part of its length does the built up width exceed two miles. Included in the corporation limits is a town on the right bank, known as Algiers, which is, to a considerable extent, the workshop of the city, and where the mechanic arts of iron working and shipbuilding thrive, with many railroad shops and freight yards.

There is now—when the wealth and prosperity of the city are based on the opportunity of connecting the domestic products and manufactures of half the continent with half of the outside world by our magnificent river, navigated by the largest ocean steamers, and by a splendid system of converging railroads—a curious interest in recalling the quaint statement of Bienville's engineer, when founding the city in 1718, that "the controlling motive in the location was the opportunity of a large and profitable trade with the savages in the back country, by way of Lake Pontchartrain and the Bayou St. John," with a four-foot bar at its mouth.

It did not occur to him that he was seated in the doorway of a continent, nor could he foresee the net work of iron roads, traversing the country in every direction and competing, as freight carriers, with the greatest rivers.

The city is founded on a bed of alluvial deposit of unknown depth. Borings of 1,200 feet have failed to reach rock or penetrate any other material than fine sands and clays in varying proportions and thicknesses. Hence, our only foundations for heavy structures are piles, which are frequently used with a 60 or 70-foot penetration. At the extreme borings of 1,200 feet, an artesian flow of salt, and at half this depth, of fresh water, is obtained.

The highest parts of the site of the city are along the immediate river front and have an elevation above ocean level of about 14 feet.

As the rise of the river is 18 to 19 feet, a continuous levee along the bank is necessary for protection from river overflow. From the river bank, the land falls steadily to a swamp in the rear of the city, extending to Lake Pontchartrain. This tract is perfectly flat, with little or no elevation

above ocean level, which extends up into the lake.

The present water works of New Orleans are owned by a private company. Its supply extends to a very limited part of the city, the rate payers not numbering more than about 5,000, out of about 63,000 premises. The greater part of the city and its inhabitants are dependent upon cisterns for the collection of rain water. This supply is both unsanitary and unreliable.

The water delivered by the water works company is in the natural condition of the Mississippi river, with its silt unsettled and unfiltered. The profound dissatisfaction resulting from this condition of affairs gave a vigorous impulse to the movement our people have inaugurated, and of which water reform was a prominent part, including the public ownership of the pumping works and distribution system.

There are two possible sources of water supply for New Orleans. One is from some of the clear and pure rivers now draining the extensive pine regions to the north of Lake Pontchartrain. This supply is good in quality and sufficient in quantity, but has no adequate head for a gravity delivery. Pumping would be exclusively necessary, and also a delivery main 30 or 40 miles long, under Lake Pontchartrain, or of greater length, by a devious route, to avoid the lake. As the present supply is from the river, the distribution system is designed to receive from this direction. Were the course just described adopted, the relative sizes of the pipes in different parts of the distribution system would have to be largely increased. Under these circumstances, the use of water from this source would be very much more costly than from the river, and without compensating advantages. For it is conceded by those most competent to judge, that the water of the Mississippi river, when deprived of the matter held in suspension, is soft, pure and palatable, meeting all the demands of a good supply. The discharge of the river, at its lowest stages, never falls below 100,000 cubic feet per second, and from this rises, in flood, to near 1,500,000.

The present intake and pumping station is midway along the river front. It is the intention when the city shall have acquired the works from the present owners to remove these above the city, with the two objects of avoiding the impurities of the river front, and to secure, at a reasonable cost, the large space of ground necessary for settling tanks, as thorough experiments, already made, prove that to obtain satisfactory results filtration must be preceded by settlement.

The very flat surface on which the city of New Orleans is built, departing from a dead level only by a fall of about fourteen feet in two or three miles back from the river, combined with the torrential rain-falls to which the locality is subject, makes surface drainage here a very important, difficult and costly undertaking, from which cities built on areas with steeper grades and of different topography are free. The case is complicated by the fact that such little natural drainage or fall of the surface as exists is away from the river, and therefore another outfall, and an artificial method of delivery must be adopted. Compelled by these necessities of the case, and following the guidance of an advisory board of engineers, and under both corporate and legislative sanction, the city, two years ago, inaugurated a most comprehensive system of works, to receive the immense volume of rain falling upon the paved and roofed surfaces, in underground conduits and convey it by pumps, to an outfall, through a natural bayou or watercourse, to an arm of the Gulf of Mexico. Heretofore this storm water, at times of great rainfall, has submerged the streets of many parts of the city for hours, putting a complete stop to all pedestrian traffic. If any of my friends and hearers have been incommoded in this way, in previous visits to our city, I can promise them that, within a year or so, such embargoes on business or pleasure will be a thing of the past.

The conduits which are being built for the removal of this surface drainage are constructed under the roadways of the streets, of masonry bottoms and sides. They are covered with steel beams and brick arches between, over which the street pavement is relaid. The storm water is introduced through catchbasins of sufficient number and dimensions. The conduits are necessarily of enormous size, as the topography imposes such slight grades that high velocities are unattainable.

The largest are 25 feet wide, and 12 feet deep, and from this their size ranges down to six feet in width to four in depth. Starting with the smaller dimensions in the higher parts of the city, along the river front they combine, as tributaries do, to form the main trunk of a river, and lead through the conduits of larger dimensions to their respective pumping stations. These

pumping stations are eight in number, and I am informed that several of the more important ones are larger than any other such works in the world. They contain seven pumps, each of which has a capacity of 250 cubic feet per second, or a combined capacity of 787,500 gallons per minute, or nearly five times the water supply of New York city. Yet it must be remembered that these appalling dimensions are not the result of guesswork, but of a careful study of the local precipitation and run-off, conducted for several years by a board of engineers selected for their knowledge of this and similar problems.

Perhaps the most novel and interesting part of the entire drainage system is the method of driving these pumps. This is done from a central power station, in which electricity is generated, and then transmitted over power lines to motors in the pumping stations, which are directly connected with the pumps. It is believed that this is, up to this time, the largest application of electric power to such purposes.

In this way, the original cost of seven separate boiler and engine plants, with the necessary real estate, is avoided, but a greater economy is found in the pay-rolls of seven crews, which would be long and costly in seven steam plants, but consist of only three names in each electric pumping station.

The conditions under which this pumping plant is to work, and which it is designed to meet are peculiar. It will be in operation only during rainstorms and for a sufficient time thereafter to pump the conduits dry. It is intended then to use a small pump, of only sufficient capacity, which is provided to keep them from any accumulation of soil or other water that is allowed, in order that their entire reservoir capacity may be held ready to meet the next rainstorm, while the larger pumps are starting. It is entirely possible under the meteorological conditions with which we are familiar in New Orleans that this immense plant may lay idle for weeks or even months, with fires banked, without turning a wheel, and then that its capacity will be tested to the utmost for twenty-four hours in several successive days. Surplus power during these intervals may be applied to pumping sewage, lighting and other electrical functions. The main features of this entire plant are water tube boilers, and compound condensing engines, tri-phase generators in the central station, a 3,000-volt power line, and two types of pumps at the pumping stations, centrifugals for lifts of from 15 to 20 feet, and screw pumps similar to that used for freshening the Milwaukee river, for lifts not exceeding five feet.

I have described this work as it is intended to be when completed. It is necessary to say that about one-third of the work is now complete, or under contract, but that its operation has not yet commenced. This is expected during the autumn of this year.

You will remember that I said a few moments ago that it was the intention to keep the conduits of this system empty and ready for the reception of a rainfall, and that I have described them as of great dimensions with high sides and wide bottoms. A moment's reflection and the slightest knowledge of sanitary science will lead to the conclusion that however necessary for, or well adapted to, the drainage of surface waters they may be, no more fatal mistake could be made than to discharge sewage into them, to trickle down their sides and over their bottom, to oxidize and generate all its foul products, waiting for the next rain to wash it out, which might not occur for weeks, and then might not more than half fill the conduit.

The conditions are such that the sewerage of New Orleans must be absolutely and entirely distinct from its drainage. The possible grades, whether natural or artificial, are so light, and the precipitation is so irregular, and at times so enormous, that the channels suitable for the conveyance of surface drainage are necessarily so large and flat that sewage entering them would have no velocity of discharge, but would stagnate, as in a cesspool, generating and disseminating its poison.

So the third part of our undertaking is a sewerage system. A sewer is a sewer, and the principles of its proper construction are so well known to engineers that there would be little to say about this one, were it not for the peculiar difficulties which the soil and topography of New Orleans impose. In the first place, advantage must be taken in its construction of the natural inclination of the surface of 14 feet on about two miles, which I have already mentioned. But this slope is away from the Mississippi river, which is the only available outfall. This natural fall is altogether insufficient to give the sewers a velocity of discharge which will be self-cleansing. As they approach the rear of the city, excavations will therefore be deeper, until, in the low



lying district where the pumping station will be located, to receive the sewage at the end of the gravity part of the system, the sewers will be a depth of about 25 feet below the surface. This pumping station will discharge through a force main into the Mississippi river, at or about the lower part of the city front.

While we are aware of the proper and vigorous movement which is now being made against the pollution of streams, we plead peculiar conditions in the practice we propose, in using the Mississippi river as an outfall for our sewage. In the first place, there is no territory or soil at all fit for filter-beds or irrigating farms within thirty miles, on the other side of Lake Pontchartrain. Throughout all the vicinity about the city everything is impervious clay. In the second place, the discharge of the river at its lowest stages never falls below 100,000 cubic feet per second, thus giving a degree of dilution far beyond that ever held as necessary by any sanitary authority. Finally, below the city there are no thickly settled communities using the river water, so that while we commend the restrictions which sanitary science generally imposes on the use of water courses, either as sources of water supply or as outfalls for the public nuisances, yet we plead that our local conditions are so peculiar as to exempt us from them, and designate the river as the proper place for our sewage disposal.

An extra session of the Legislature was held at Baton Rouge, the capital of this state, on the 8th of August, at which meeting the general assembly did by act confirm the results of the special election in providing a special levy, ratify the ordinance passed by the municipal council, provide for the organization of a sewerage and water board so constituted as to be beyond the influence and control of politics. The general assembly also reported a constitutional amendment to be submitted to the people at the general state election to be held in April next, confirming the municipal and legislative action, and giving constitutional sanction to the public improvement bonds to be issued for the execution of the proposed work. All preliminaries for the bond issue and general organization of the board are now being made, and after the election in April the work will be pushed vigorously. Our design is to complete the whole drainage, sewerage and new filter water plant in five years. These great works accomplished, we believe that yellow fever and other epidemic diseases will be forever banished from New Orleans, and the consummation will open up an era of progress and commercial prosperity for the city as yet undreamed of.

### The Municipal Ownership of Public Service Industries.

[Full text of an address delivered by Hon. Henry V. Johnson, Mayor of Denver, Col., before the Convention of the League of American Municipalities, Syracuse, N. Y., September 19-22. Now first published.]

The question under discussion, like all others which the human race have solved, must pass through the crucible of investigation. It must stand the test of criticism and opposition. It must pass through the fire of actual trial and experience. Unless like the pure gold it comes forth brighter and unharmed, it is sure sooner or later to be relegated to that vast graveyard prepared for those things which the human family have "tried and found wanting."

To this unceasing striving for the better, to this remorseless rejection of that which has proven a failure, man owes the dizzy, the brilliant position he has attained in the material world of to-day. Go to some museum and look upon the relics of some pre-historic race; see those stone and wooden utensils, those simple methods of defense, those clumsy weapons of destruction, those flimsy excuses for clothing. One moment the tear of pity may rise unbidden, the next the sense of pride takes possession of us, when we glance along the weary, dreary road our fellowmen have trodden, dragging themselves painfully, slowly, but surely into the glory, the grandeur and the luxury of the present. It has been attained by ceaseless striving and selection, coupled with cold and inexorable rejection of that which is unfit. Go to our patent office and look upon those materialized ideas of the human brain. Thousands and thousands were born but to die. Does it stir any pity in the marching caravan that those ideas did die? No. They were unfit. They met the testing fire and are scorched out of existence. They are but sparks or meteors serving to interest and amuse for the instant and then to pass away. But the procession still keeps onward and upward. The fever of improve-

ment and betterment rages the world over. Man unsatisfied reaches ever, ever outward and toward something he thinks is better. In every branch and avenue of material industry, in every field of literature, art and science, the cry is "something better, give us something better!" The improvement which is a wonder to-day, is on to-morrow eclipsed by something so much greater, so much better, so much more beautiful than the old, that we wonder how we could have admired the old for an instant.

To this same instinct of selection and rejection we can credit the modern city; with its luxurious homes filled with everything that pleases the eye and ministers to the comfort of man; with its lawns and parks enriched by the beauty of lakes and trees and flowers; with streets paved after the most approved methods and lighted by electricity; with water conveyed in pipes to the very point where needed for use; with the ability to light our entire house by pressing a button; with the telephone to talk to distant persons and save many a weary step; with electric cars to carry us swiftly and smoothly whither we wish to go, one is ready to exclaim: What more can be wanted? Is man ever to be satisfied? And the answer comes back, No! not until the moral spots and sores upon the body politic are wiped forever away; not until filthy, foul and unhealthy districts are a thing of the past; not so long as innocent womanhood must eke out an existence in miserable huts and hovels, ill ventilated and ill heated; not so long as helpless childhood shivers and cries to us for the want of food and clothing. Never so long as that condition exists whereby a few can clutch and control the necessities of life, and by selling them at exorbitant rates can fatten and grow rich at the expense of the many! With all these various and important questions the modern cities of to-day are grappling, and among the most important of all this is the question, shall the cities own the public service industries? In other words, shall the city own and operate for the benefit of its people the water works, the gas and electric light plants, the telephone and the street railway?

The question should be discussed from a purely business standpoint. The city must be considered collectively. It is a municipal corporation. It is a legal person. It is a creature of legislation. To the extent of the powers conferred upon it, it is as much an individual identity as a natural person. In importance it ranks far ahead of the individual person, for the reason that the city represents the aggregated interest of thousands of persons. It is collectively as one family, one community. And so as the interest of the entire family exceeds the interest of a single member of the family, just so the interest of the entire city far exceeds the interests of any individual citizen or set of citizens. The good old rule, "The greatest good to the greatest number," is the true rule, the real touchstone by which we can hope to safely and truly settle these questions. So when a city comes to decide whether to adopt a certain line of policy, whether to undertake a certain business venture, she should look at it from the standpoint of a plain, common sense business man, or, perhaps, to put it more broadly and more sacredly, from the standpoint of a clear-headed, upright and conscientious trustee, a trustee who has the highest and best interests of his beneficiaries at heart. A trustee who asks the question, what do these people whose welfare I am supposed to look after really need? How can I obtain for them the best service for the least amount of money? How can I procure the purest and most abundant supply of that universal necessity, water, at such rates that the poorest and humblest can have all that he needs? How can I manage to secure light at such rates that every night every home may be lighted, every street and alley and public place shall be so bright that crime and robbery and murder shall have no place to hide its shameless head, but shall be driven from the midst of my people? How shall I arrange this question of street transportation so that the humblest laborer can afford to take his little family of children out from the hot centers of the city where they sicken and die, into the pure, fresh air of the suburbs, where living is joy? How can I place, at the very lowest rates, a telephone in every house of my people and thereby make electricity supplant the weary feet of the messenger?

That the municipality can, under the law, undertake the business of furnishing these latter day necessities to its people is beyond the pale of doubt or question. It has been positively and finally settled both by state and federal courts that the city has authority, if so endowed by the legislature, to provide its people with water, light, street transportation, sewers, docks, markets, schools, dispensaries, parks, libraries, museums and gardens. One decision of the great and advanced state of

New York says: "The true test is that which requires that the work shall be essentially public and for the general good of all the inhabitants of the city."

The legal right being at this time admitted, the whole question resolves itself into one of practical business expediency and economy. Is it better for the city to supply these utilities to her citizens herself and thereby save to her citizens all the profit, by either furnishing the desired article at cost or at such rates that all over and above cost should be applied to a reduction of the general taxation in the city?

I wish to take up the question as to water, light, street transportation and telephones in the order named and state in brief the various reasons why the city should own the plants and furnish these utilities to its citizens.

### WATER WORKS.

Water stands pre-eminently at the head. It is not only nature's great cleanser and purifier, but it is an absolute necessity to the human system. It not only enables man to cleanse and beautify his person, his clothing, his home; to surround his home with lawn, with flowers, with trees and shrubs; to adorn his parks with fountain, with waterfalls and lakes, but without it man perishes from the pangs of thirst. Coming from unhealthy sources, it scatters abroad the seeds and germs of disease, hence it must be pure. From time immemorial the cities of the earth have, to a more or less extent, controlled and supplied this necessity to their people, Nineveh, Babylon, Jerusalem and Rome. When Cortez first set foot in Mexico, the beautiful capital of the Montezumas, that city had its aqueduct and bountiful supply of water.

Coming down to modern times, we find that the sober phlegmatic German, the conservative, careful Englishman and the shrewd Scotchman are the most advanced of all the world in municipal ownership of water supply. In England, all its cities, except London, having over 300,000 population own their water works. Of twenty-three cities of 100,000 population only six do not own their water works. All the towns in Scotland and Ireland over 50,000 population own their water works.

In the United States, at the beginning of this century, only one city owned its own water supply. In 1879, 3,200 towns and cities had water works, 54 per cent. of which were owned by the municipality. That the handling and furnishing of this great human necessity is a source of enormous profit to private enterprise is proven by the avidity with which the franchise to furnish it is gobbled up and the extent to which the private company is stocked and bonded. Take, for instance, the water company of Denver, bonded for \$7,000,000 and stocked for seven or eight million more. When we contemplate this fact and realize that competent engineers declare its plant can be reproduced for \$5,000,000 or less, we are led to ask the question whether there is as much water in its reservoirs as there is in its stocks and bonds. Denver is no exception in this particular, for the same condition prevails in every city where the water supply is furnished by private enterprise. To pay princely salaries to sleek, over-fed and under-worked officials, to keep up and maintain luxurious offices, where from behind polished mahogany counters surmounted by marble tops and looking through plate glass partitions, the "Water King" demands and receives the exorbitant price from his fellow man; to pay fancy dividends on millions of dollars of stocks and bonds in which never a cent of money was invested; this, this is why the private water supply of cities is so eagerly sought after; this is the reason why his franchise is held to with so tenacious and death-like a grip; this is why the people are duped and gulled, and city councils are bribed and cajoled into giving away this valuable right; this is why private enterprise seeks to secure and barter out for immense private gain this precious, this indispensable necessity, water.

Three years ago Kansas City, after many years effort, succeeded in buying the water works plant for \$3,100,000 and issued bonds bearing 4½ per cent. interest. Selling water at the same rates as the old company, the city has paid the interest, \$139,500 each year; has made improvements and extensions amounting to one-quarter million dollars, and the city has had, free of cost to herself, water for sprinkling and washing streets and flushing sewers, items which formerly cost her \$70,000 per annum. This year the cost of water to citizens has been reduced 15 per cent.

One of the strongest reasons for city ownership of water supply is that the city is more able to go to greater distance and to greater expense for the purpose of securing a larger and purer supply. The city of Birmingham, England, has as her source of supply a lake located high on the mountains and seventy miles from the city. To

insure its cleanliness, Birmingham has bought the lands adjoining the lake and sown it in grass to prevent soil washing into it, and also forbids horses or cattle from grazing near it.

Located as Denver is, near to the mountains, it would be possible for her to go into the mountains and secure the purest of all water, the melted snows, at an altitude of 1,500 or 2,000 feet above the level of the city. She could have three or four reservoirs, at each of which there could be falls of from 400 to 500 feet each. Each of these falls would, with proper appliances, generate 20,000 horse power of electricity. Thus by the very act of the water coming to Denver from this altitude there could be generated 60,000 horse power of electricity, or enough power to run every street car in the city, to light every house, street, alley, park and public place; to enable the placing of a telephone in every house; and still have thousands of horse power to dispose of for other purposes.

#### GAS AND ELECTRIC LIGHT.

The question of light is as interesting and almost as useful to a city as that of water. We find that the struggle on the part of the private gas companies to retain control of the business and to prevent city ownership has been equally as hard and as protracted in the matter of gas as it was in that of water. It was after a bitter fight between the private companies and the city, that continued for years, that Glasgow finally obtained the ownership of her water works. That ownership has proven a blessing to the whole city and is a source of pride and profit and pleasure to her people. Just so was the contest to secure ownership of her gas plant. The gas company of that day in Glasgow seems to have had all of the various qualities for which the American gas company is noted. High and excessive charges, meters which seemed to work as well by day as by night, made the life of the Glasgowbourgher as miserable as it does the life of the American. The gas consumers became enraged and a war began which finally resulted in a triumph for the people, and Glasgow entered upon the manufacture of her own gas in 1869. At that time the price was \$1.20 per thousand feet and about 1,200,000,000 cubic feet per annum was used. The consumption increased enormously, so much so that in 1895 4,500,000,000 of cubic feet was consumed and the price had been reduced to fifty-two cents per thousand feet, bringing in a gross revenue of over \$3,000,000.

The price of gas is exorbitant when furnished by private companies and the quality is usually in inverse ratio to the price—the higher the price the meaner the light. The cost of manufacture and supply is variously estimated at from seventeen cents to thirty-five cents per thousand feet, owing to peculiar conditions. But there is no doubt that the greater the amount consumed the less the cost per thousand feet.

I was informed a few years ago by the manager of a gas company in an Ohio town of 5,000 people that if he could sell all the gas his small plant could make at the small price of twenty-five cents per thousand feet his company would make all the money it wanted.

In Denver the price of gas is \$1.35 for illuminating and \$1 for fuel per thousand. Another company is anxious to form and secure a franchise, and will agree to furnish gas for eighty cents per thousand feet, for either illuminating or fuel purposes. This is a fit illustration of the enormous profit the people are forced to pay for this necessity to that modern octopus, the gas combine. The Denver Gas Company and the Denver Electric Company consolidated or formed a trust. Prior to consolidation they represented stock to the amount of about \$2,500,000 and were bonded for about \$2,500,000; after consolidation they are stocked for about \$3,500,000 and bonded for \$5,500,000, so that notwithstanding the fact that they have been able to cut down expense by using one office instead of two and one set of officials and clerks instead of two, still the people do not receive the benefit of this saving, but they must pay about as high a price as before in order to swell the fancy dividends on watered stocks and interest on bonds.

It can readily be seen that the proper remedy is not by means of a separate company, which would be compelled to lay lines of pipes parallel to those of the old company, thereby entailing new and heavy expense, and requiring the digging up of the streets a second time. If a new company can build a plant and sell gas at eighty cents per thousand cubic feet, they do so knowing they can make a profit at that price. The only proper solution is for the city to buy the present plant and sell the gas at a properly reduced price or build her own plant. There is nothing so conducive to the appearance of the homes of a city as good and sufficient light, nothing

that adds more to the cheerfulness of those homes.

The electric light is by far the cleanest, most convenient and most easily connected of all methods of lighting. Owing to brilliancy and ease with which it can be turned on and off, both for streets and for houses, it is the method for illumination. To give an idea of cost, the city of Denver now pays a private company \$100,000 for lighting her streets with 1,000 arc lights of 2,000 candle power. Upon carefully drawn plans and specifications, already made, Denver can build her plant complete for \$250,000 and can furnish her streets with the same number and power of light for \$50,000, thereby saving \$50,000 a year, and paying for her plant in five years.

I believe the day will come when the gas will be used entirely for fuel and electricity for illumination. There is no fuel for cooking more cleanly or more convenient than gas, unless perhaps it be some of the modern appliances for cooking with electricity.

#### STREET RAILWAYS.

When we come to street railways we find again that England and Scotland stand at the head in municipal ownership. Glasgow, after having built her tramway system in 1891, for twenty-three years leased it to a tramway company to operate, but in 1894 took possession of it and has since then been operating it most successfully and at greatly reduced fares. The tramway company started an omnibus line in opposition at very low fares, but the street railway, operated "by the people and for the people," continued to be more and more popular, until finally the omnibus company gave up in disgust and acknowledged themselves beaten out. Thus has the cause of municipal ownership of street transportation triumphed in Glasgow, as it surely must triumph when the enterprising cities of the world take up the matter and operate it in a strictly business way. In Great Britain and Ireland about one-third of all the street railways are owned by cities, and in Scotland nearly 60 per cent. Liverpool, Sheffield, Leeds and other municipalities own their own street railways.

In 1892, Toronto, Canada, took possession of her street railways and let the operating of them to the highest and best bidder. She received 8 per cent. on the gross income and \$800 per mile per year, and yet the company paid in 1899 12 per cent. dividends. She also has low fares at certain hours in the morning and evening for the benefit of laborers and half rates for children. I mention Toronto's experience to evidence the vast value of the franchises which the cities of this country, as a rule, have absolutely given away up to this time. Who can fully foretell the great change the rapid electric street railway will, in a few years, work in our great cities? The city of the future will extend into far reaching suburbs. Knowing that they can by the electric road reach rapidly the business centre, the citizen will build the home for his little family farther and farther out where the land is cheaper, where the air is purer, where wife and children can have the advantage of larger lawns, more trees, more flowers, more birds, more life.

A city owning and operating its electric lighting plant is more nearly ready to operate its street car lines. The same plant has only to be enlarged to furnish more power, and the same poles carry many wires for both purposes. From this joint electric power house there comes a by-product of steam that is free of extra cost and which if properly used is capable of heating all buildings in a radius of one-half mile. From its use immense public baths might be heated; or great public wash houses furnished at small cost to the laboring classes, where (as in Glasgow) the poor woman could take her laundry and for a few cents secure soap and hot water and tubs for washing and mangles for ironing her clothing.

In the hands of the private companies, street railways are a tempting field for the efforts of the trust promoter. Under the skillful admixture of his honeyed tongue and a liberal allowance of water, a plant of street railway, costing a million dollars, is easily transformed into one worth many millions dollars on paper. The favorite formula is 10 per cent. cash to 90 per cent. water. This done, every energy is bent to make large dividends by working its employees over hours and charging exorbitant fares. Having done this much for the public good it becomes a sensitive plant, and it assumes an injured air if a suggestion is made that its business is one that the people should take back to themselves and operate for themselves.

#### TELEPHONES.

Is the telephone such a utility as the municipality should own? We think it is so much so that we believe it not only well

for the city to own and control it for its people, but it would be better if the state owned it, and it would be far best if the national government controlled and operated it for the benefit of the whole people. A private telephone company in a city at this day, even with high and exorbitant charges, is far better than no telephone system. What a saving in time and steps to be able to call up your butcher, your grocer, your physician, your carriage. Who would not at this day regard it a necessity? While there are advantages in having one line to reach all you wish to communicate with, still it is better to have two competing lines in a city at reasonable rates of charge than to have one system which charges outrageous rates and thereby prevents many persons from putting a telephone into their business houses and into their homes. It is urged that two systems are an annoyance, that two are a real detriment to the city, that when you would look for a person to talk to on your line you would find he was on the other system. That you would be compelled to use both systems, etc., etc. To all these objections we can say that in cities where we have only one system we frequently look for the name of a person we wish to talk to and find he is not in the directory and we must reach him in some other way, by mail for instance, or go and see him. The high prices have prevented him using this necessity. That which should be placed within his reach is, owing to the high rate, made a luxury which he and his family are forced to deny themselves the use of. The companies themselves will tell you it is a business which does not admit of the usual business competition; that a city with two competing lines is worse off than with one. They will admit it is a business which is a natural monopoly; is one that would be best operated by the city, state or national government.

The company goes on the principle that it is better to receive \$120 per 'phone per year from 1,000 subscribers than \$40 per 'phone per year from 3,000 subscribers. It costs less to operate, less office room is needed, smaller switch boards, fewer employees, less number of telephones to keep in repair, fewer lines to look after. Their motto is "Fewer patrons and higher charges make us more clear money." From their standpoint they are all right; from the people's standpoint they are all wrong.

In Denver 2,500 telephones are in use. For an unlimited service the charge per telephone per year is \$120. For party lines reduction is made, but for reduced charge you receive reduced service.

Indianapolis, with about the same population, has two systems. The new telephone company, with a better system than Denver, charges only \$40 per 'phone per year in a business house, and only \$24 per year for residence. Both are full, unlimited, up to date systems, as good as can be had. This new company is doing a fine business and making a handsome profit. If this is true, by what name shall we style the company which charges the people of its own city three times as much as is necessary to make a handsome profit?

In olden times when a man desired to hold up and rob his fellowmen, he donned his cap and sword and became a jolly bandit, and meeting his victim on the open, he gave him at least a chance of defending his money and his life. But in this latter day, with all its learning and art and science, that old way is strewn with more dangers than this modern highwayman desires to come in contact with, and so ensconcing himself behind silken curtains, in cosy office, cooled by electric fans, and lighted by rose colored electric bulbs, the latter day "Captain Kid" robs his fellow men by peddling to them necessities of life at ten times what they cost, and yet when they are reminded of this fact, when the people are told of these things, when the people are shown that they should furnish these things to themselves at something like their true value, the men who urge these changes are termed "anarchists," "socialists" and "destroyers of vested rights."

But let them call all the names they can or will. The people all over this country are awakening to the fact that there are some things they can do for themselves and they intend to do them; they are realizing they have been travelling the wrong direction and they are going to "right about face." They have been for centuries like a sleeping lion. They are waking up. The lion is beginning to realize his strength; he is beginning to realize that he has been tramped on, and wronged and wounded and kicked and abused and defrauded. The education of the masses is to be their salvation.

The so-called "conservative business man" who has water stock and gas stock and tramway stock and telephone stock by the thousands, from which he draws big dividends, and bonds from which he clips lovely coupons, would raise his eyes in holy



horror and say "Ah, that is not the function of city government, a city is only organized to keep clean streets, and to provide policemen to protect me and my money bags from men driven to desperation by want and suffering. A city should not undertake to furnish cheaper and better water; a city should not undertake to provide its people with better and cheaper light, better and cheaper street car facilities, better and cheaper telephones. No! No! If this was done I and my helpless offspring would have to give up our business, which is our vested right!"

But this one-sided reasoning no longer proves effective. The people are learning that government means service to themselves; they are learning that they, the people, are the masters; they are learning that government is made for them and not they for the government; they are learning that they have the right to do what is best for themselves and their children; they are learning that if they can carry on the public schools in the magnificent way those schools are conducted to-day, they can also conduct the water works for themselves; if they can conduct the postoffice business in such admirable style that a man living in Maine can for one cent send a message to his brother in Alaska, the people can also furnish gas and electric light to themselves far cheaper and better than any corporation can do it; if they can construct sewers, build bridges, pave streets, lay out and maintain parks and pleasure grounds, why can they not manage and control the railway that runs in their own street; if they can maintain the fire department and the police department, where the men employed are continually risking their lives in defense of property and protection of human life, and if need be are dying like heroes at their posts, why cannot people find honest, trustworthy men to operate successfully and profitably as simple a business as that of a telephone plant. They can do it, and they will do it. The same spirit that animated a Washington to rush to his country's defense in the hour of danger still lives, and will furnish the men to their city who will take pride in rendering good and faithful service in operating public utilities for that city.

This is the day of combines and trusts. Men who have had the business sagacity to accumulate large fortunes are the ones to-day who are urging combination; they are the ones who are crying that competition kills; they say to each other, "Let us quit this foolish competing and trying to cut each other's throats; let us stop this terrible waste in expense in keeping up several business places where one will suffice, in paying for different advertisements when one would do, in sending out an army of travelling men to sell our goods when, if we all combine, the buyer will have to come to us. Let us cut off all of this useless expense and put the savings into our own pockets to swell our dividends."

The trusts and combines are doing all of this and more. The combine has to stay; the trust is a part of the institutions of to-day; it is the spirit of the age; it cannot be legislated out of existence; it can and must be controlled. It can be controlled partly by prohibiting the issuance of watered stock. Over capitalization or watered stock is the curse of the age. A concern that costs \$10,000 is capitalized for ten times its value, and then the unsuspecting public are "worked" and made to pay high prices so that the combine can pay big interest not only on the actual capital, but also on the 90 per cent. of water.

But I did not mean to digress into the subject of trusts and combines. I only intended to use them as an illustration of what is possible to be done under combination. What capital is doing for itself, the people of a city can do for themselves in the ownership of their public utilities. The "trusts" are a great object lesson to the people, and as our cities study this lesson they will see how immense savings are made and how the cost of production is made cheaper and cheaper. They will finally understand that water and light service are great human necessities; that they are such necessities that no man or set of men should be allowed to speculate in or to handle for profit; they will learn that they can produce them for themselves cheaper and better than any one else can do for them, and when they do learn this (and they are learning it fast), then will our cities own and control and operate all of these great public industries.

—The Continental Filter Company report that they are at work upon a recent order for a pressure filter plant for the Clinton, Iowa, water works; daily consumption two million gallons.

### The Problem of Municipal Ownership.

[Full text of an address delivered by Martin A. Gemunder, of Columbus, O., before the convention of the League of American Municipalities, Syracuse, N. Y., Sept. 19-22. Now first published.]

During the last ten or fifteen years I have read and examined many articles, books, editorials, reviews and statements touching upon this problem of municipal ownership. Such examination has disclosed the fact that the main arguments pushed forward, one way or the other, are drawn almost exclusively from tables and statistical matter. I fully recognize the validity of this method for drawing conclusions, but when it is further noticed that figures and tables flow so copiously from the pens of the representatives of both sides to the controversy, each side frequently charging the other with unfairness, one can hardly help believing that either there is considerable uncertainty in the data presented or personal bias has guided the selection and grouping of the alleged facts. After a careful review of the situation I am of the opinion that before trustworthy conclusions can be arrived at by means of this so-called inductive method, examinations into fiscal statements and operations will have to be far more systematic, careful and exhaustive than they have been up to the present time, and I say this too with a full appreciation of the large amount of painstaking labor that has already been employed.

If municipal ownership and management is in the main productive of better results to the community than is private ownership and management, there must be some fundamental cause responsible for this gain. If on the contrary the reverse is true, then there must likewise be somewhere an agency at work which may be brought to light. In an attempt to sift the underlying factors—in an effort to show their value and the consequent direction in which lie the tendencies for the best results—this brief article will expend itself.

Leaving out of court all questions relative to the true functions of a government, what it should or should not do in order that there may be developed a healthful and independent citizenship, and taking it for granted, as most citizens apparently do, that within certain very broad and ill-defined lines, a government may properly undertake and carry out anything that a majority of the citizens deem for the public welfare; arguing on this basis the problem resolves itself into one of service and dollars and cents, or ultimately into one of dollars and cents only. It certainly matters little or not at all to the very large majority of the people, who it is that supplies them with any needed article provided only that the quality and price are satisfactory. In other words the question to be determined is, Can or cannot the official representatives of a community acting directly as producers and distributors secure for their constituents certain required services at a smaller sacrifice of earnings than when such services are furnished by private enterprise? That they can and actually do so is contended for by advocates for municipal ownership, and that they will not or cannot do so is the plea urged by the opposition. Let us examine the question as an abstract mathematical problem.

Assume a plant calculated to supply a municipality with gas, electric light or other similar commodity. If this plant is private property the subscribers to the capital stock would certainly expect returns on their investment exactly as would owners of dry goods, furniture, hardware and other business establishments. Interest on investments would then be paid in the shape of dividends. The cost to the consumer would be indicated as follows: Let X equal the cost, I the interest or profits, T the taxes, D the depreciation, N the insurance and E the operating expenses and we will have the following equation:  $X - I - T - D - N - E$ .

Take now an exactly similar plant under municipal ownership and management and we will find the following: We have no stock subscription, but we have what would be practically the same thing, a direct assessment on the property holders for the means for carrying on the business, in the shape of tax levy. It matters not in the least whether the city issues its bonds or not for securing the capital, for the bonds are all ultimately in some way made good by taxes. The community is thereby deprived of the use of that much capital in its everyday life. Remembering too that many, if not a majority, of the people and taxpayers are not consumers at all of these particular commodities, and of those who are patrons the amount of patronage is very large in some cases and small in others without regard to the amount of taxes paid, then it becomes evident that this enterprise, though a public one, should yield a profit.

The municipal plant should therefore exact from its consumers as a part of the item of cost, interest on the investment at the current rate of business gains in the community; turning this gain into the public treasury as a rebate to the taxpayer. This method equalizes and corrects conditions between taxpayers and consumers. It prevents the sacrifice of one to the other.

It has been the almost universal custom to calculate the rate of interest against the municipal plant at the rate of interest at which a city can float its bonds. Personally, however, I can see no reason for this. The fact that a good city can sell its bonds on a three or a four per cent. basis has nothing to do with the rates to be charged against the investment, for, as before stated, these bonds are all ultimately, in some way, taken up by the taxpayer. He furnishes and is deprived of the use of his money whether there has been a bond issued or not. There is no relation that I have ever discovered between a city's ability to borrow and the rate of interest to be charged against a municipal plant, when the loan is redeemed by taxation. The rate at which a city can temporarily borrow money is one thing, but the rate at which it can permanently appropriate capital is another. In the former instance it is merely a matter of credit—a probability that a given sum will be returned unimpaired at a given time—the rate of gain or interest being fixed with no chance of a diminution. To all intents and purposes it is a guaranteed investment as far as the creditor is concerned. In the latter instance it means transferring capital from people's private to public affairs, hence it is self-evident that if the new investment, though in public hands, fails to yield the same rate of returns as the business from which it was withdrawn, a loss has been entailed. The real rate to be charged against a municipal plant would therefore be the average rate of profits in mercantile pursuits, for that is what the taxpayer loses when the government deprives him of his capital.

In enterprises employing large capital this rate may not exceed four or five per cent., but in the very large number of small concerns where the investment of a very limited amount of capital enables the owner at the same time to advantageously place his labor, six per cent. interest would, so to speak, cut no figure at all. For example, A with \$2,000 capital starts a grocery. Being owner, he is enabled to put in his own time as manager and salesman. If his profits at the end of the year are but \$600 his capital would have been worth 30 per cent. to him. He would hardly have consented to parting with it for a 6 per cent. return. To charge a rate of less than 6 per cent. against a municipal plant I believe will lead to wrong conclusions.

It should here be noticed that if the average rate of business returns or profits are charged against a municipal plant, and the profits of a private plant are not above normal, then there would be a substantial equality between the profits exacted by a private corporation and the interest to be charged against a public plant, a conclusion which is not sufficiently present to the minds of those advocating municipal ownership.

An industry in the possession of private parties pays taxes. Transfer it to the city and this source of revenue is lost to the municipality and must be made good by extra demands on the taxpayer. For the same reason that interest is charged up as an item of cost, so must also be figured in taxes and insurance. Operating expenses and depreciation will appear under municipal ownership as well as under private ownership. Our items of cost to the community would then under municipal ownership be interest, taxes, depreciation, insurance and operating expenses. If X equals the cost, I equals interest, T equals taxes, D equals depreciation, N equals insurance, E equals operating expenses, then we will have the equation:  $X - I - T - D - N - E$ .

Apparently this is the same equation we have under private ownership. Assuming profits to private parties to be normal, and management everywhere equally honest and capable, the equations would in fact be identical, or in other words, it would be a stand-off between municipal and private management as to results. The one being no better than the other. Municipal ownership brings into play no new factor to make its labors more productive. It will hardly be necessary to state that the customary way of showing a success by merely indicating an excess of receipts over current expenses is very erroneous and misleading. It would not be followed by any one having knowledge of accounting.

Let us examine the two equations more in detail. Although on paper they appear as equivalents, yet, as all parties to the controversy would assert, they are not so in actual practice. Advocates for municipal ownership would take exceptions to the

quantities I and I' being considered as equivalents, claiming that I representing private gains is so swollen by private greed as to far exceed in size the quantity I' representing current interest and profit rates. Advocates for private ownership would also contend that E', representing operating expenses under municipal ownership, owing to incapacity and dishonesty, inherent defects in the public service, is a quantity which very much exceeds in value the quantity E, representing operating expenses under private management.

As far as the comparative values of I and I' are concerned, I will endeavor to show later on that if I is, as a matter of fact, greater than I', it is simply the fault of municipal managers, a fault that can be corrected if proper methods are followed.

About the quantities E and E', representing operating expenses, much is to be said. Private management and excessive self-interest or greed are always closely associated in the public mind. These traits, and it will be useless to deny that they are present to a greater or less degree in all private business ventures, instead of being faults, are the very factors we must look to for economical management. In order that the greatest gains may be realized, this so-called greed insists that work must be skillfully performed and expenses kept down. If this line of conduct is not maintained profits must fall off. All losses must be borne by the concern, for there is no accommodating taxpayer to make good deficiencies. In our day, where competition for the possession of the market is so sharp and severe, rigid economy in production must be the rule of action or the industry is forced to the wall.

In the public work no such deterrent is present. There is practically no going to the wall. An officer is elected or appointed for a given term, and unless his faults have been glaring indeed, he holds his place to the end. His good or his weak points are seldom known until he has stepped out of office and his actions have been reviewed by his successors. If mistakes have been made, the taxpayer pays the bill and a fresh start is made under the new regime. As far as the personnel of office holders is concerned, well, every one knows how they are selected. Indeed, if but half of that which is said about us is true, then we are a sorry lot. In my opinion, however, the weak point in the public service is, not so much lack of character on the part of public officers, for I fully believe that there are few cities that have not at least some men in office whose reputations for integrity and capacity are above reproach. Shortcomings are traceable largely to inexperience; inexperience due to short terms of office.

In the city of Columbus, Ohio, for example, we have a department of public improvements at the head of which is a director. As prescribed by law, this director shall have the care, management and administration of the water works, shall fix the rates to be charged therefor, and collect the same; shall have the care of streets, avenues, alleys, highways, public grounds, parks and the opening, improving, repairing and cleaning of the same; shall have charge of public buildings, bridges and structures of every kind; of sewers, drainage and dredging; of making and preserving all surveys, maps, plans, drawings and estimates relating to the public work under the charge of said department; and of all matters and things in anyway relating to or affecting the highways, footways and waterways; he shall have the supervision and the exclusive control of the lighting of streets, alleys, avenues and public places and buildings of the corporation; all the powers heretofore vested in and performed by the trustees of water works, trustees of cemeteries, park commissioners, planting commissioners and civil engineers, shall be vested in and performed by the director of public improvements.

It would seem to the citizen of average intelligence that if experience was of value at any time or at any place it would certainly be here. Nevertheless, the head of this department owing to the state laws and local differences in politics, has been changed four times during the last seven years, assistants frequently going out with the retiring director. To fully appreciate this state of affairs try and imagine the effect on the operating expenses and results of any private business organization, of a turning out into the street every few years of its entire force, from president to porter, to make room for comparative novices. Fancy, too, the amount of enthusiasm and desire to excel that must be instilled in an employee by the knowledge that in all probability he will be dismissed in a year or two. Few will deny that a city must pay enhanced prices in order that it may obtain officers and clerks equal in ability and character to those found in private business houses. Enter any store or office, pick out a clerk who is receiving say \$600 a year, ask him to take a political position at

\$800 or \$1,000 a year and he will hesitate. He knows that after deducting his political assessment, his half forced contributions to societies, dances, outings, church entertainments, persons in distress, raffle tickets, etc., there will be comparatively little left him except the certainty of losing his place altogether in a year or two. I venture the assertion that there is hardly a clerk in the public service who would not be willing to allow a liberal reduction to be made from his salary if he were freed from the above annoyances and allowed to retain his position as long as he satisfactorily performed his duties.

During the last session of the legislature of the state of Ohio a commission was appointed to draft and report to the next legislature a law for the organization of all cities, towns and villages in the state. Judge Pugh, of the commission, in a recent address to the Optimist Club of Cincinnati, Ohio, made the following statement: "In regard to the momentous question of municipal ownership and control of street railways, telephones, lighting facilities, etc., there is but a remark to make. Till the merit system is firmly established, and in good working order, we are sentimentally opposed to such ownership and control. We are not indifferent to the argument that the people are just as capable of running its street cars, telephones and lighting business as it is its police and fire forces. It will be a happy day when this can be done and when the city grades its own streets, builds its sewers and other public works. But until city politics are purified of place trading and venal jobbers, till the political bosses are dethroned, we are in favor of conservatism on this subject of municipal ownership and control of street railways and telephones."

I am ready to admit that a good civil service law well enforced would materially improve the public service, yet I also insist that even this betterment would still leave it inferior to private service. A civil service law is defective in two points: First, owing to difficulties and red tape in the matter of discharge and removal, a tendency will prevail for retaining in office incompetents and fossils. Second, it affects mainly the clerks and does not protect at all the heads of government and department; the persons of all persons who should be thoroughly equipped with knowledge and experience. Most of the gentlemen present at this assembly are public officers and department heads. Every one of you will feel, I am sure, when your turn comes to step down and out that you were just beginning to get affairs well in hand, and had you been permitted to remain longer in the harness you could have accomplished much for the public good. In other words, you were never accorded the opportunity of giving your city the best you were capable of. Really there is no more reason for applying the civil service system to clerks and sub-officers than there is for applying it to mayors and heads of departments. In a private organization no such inelastic, hard and fast rules prevail. As long as employer and employee find it profitable to remain together, so long will they work side by side. When association ceases to be mutually beneficial, ties are promptly severed. This is the only real merit system.

Any one reading the debates that took place prior to and during the adoption of the federal constitution cannot fail to notice the fear that pervaded the atmosphere of creating or fostering an official class. This feeling is still prevalent, hence short term presidents, mayors, councilmen, etc. As one prominent writer has said: "Whereas, any handicraft, such as boot-making, requires a long apprenticeship, yet the art of governing and making people's laws is easy. This comes by nature." Some such belief as this must govern the action of citizens, otherwise it is hard to explain the frequent changes sanctioned by the people. As a result of this promiscuous office-holding few of any cities have fixed financial or business policies. No opportunity is given officials who attempt new departures for watching results and correcting methods which time has shown to have been mistaken ones. Progress under such circumstances must needs be uncertain and slow.

But this is not all. Frequent changes in office entail inexperience and liability to err, to say nothing of increasing the chance for obtaining dishonest officials. The public has undoubtedly recognized this to a degree, and as a consequence the laws of the various states team with enactments toward limiting the discretion vested in a public officer. To cite a single example by way of illustration. The laws of Ohio prescribe that in cities of a certain size, no contract involving an expenditure of money to exceed \$500 in amount shall be made without advertising for proposals for a period of two weeks. This provision is probably a wise one brought out by bitter experience. But who would think of adopting any such cut and dried rule for his own business.

With prices fluctuating continually, and at times even to a very material degree, a law of this kind absolutely thrusts aside opportunities for taking prompt advantage of the state of the market, while at the same time it encourages combinations and deals of which the city will be the victim.

In a private business, when a man is placed in a position of responsibility, the presumption is that he will faithfully labor for the welfare of the concern. In the discharge of his duties he is permitted to do anything that he sees fit, in the interests of the business, not outside of the rules of common honesty and prudence. There is no division of authority into legislative and executive. The president or manager is an autocrat whose career is only checked by failure in obtaining results. There will be little dissent from the statement that but for this almost unlimited power and discretion vested in private managers, the productive forces of the country would never have reached their present high state of development.

With city officers a policy the reverse of the above is adopted. When they assume their duties the presumption evidently is that they are very fallible. Their duties and the manner in which they shall perform them are prescribed for them in minute details. Instead of being permitted to do anything but that which is expressly forbidden, they can only do that which they are expressly charged with doing. In thus curtailing their freedom to act as their sense of property may dictate, while they are thereby prevented to a certain extent from committing great sins, yet at the same time, they are seriously hampered in efforts for securing the best possible results. Services under such conditions can never far exceed mediocrity.

During the last few years the cry has gone forth for "A business administration." Some years ago our city elected a business man to the office of mayor. He was a gentleman of means and standing in the community, who took the office from a sense of duty only. Upon assuming his duties he found a woeful difference between being a public executive and a private one. He found his hands tied in every way by law and ordinance, prompt and independent action being everywhere blocked. One day he turned to me and said, with every indication of strong irritation in his tone and manner, "Business methods indeed! How long would my own private business progress if I were compelled to consult nineteen partners every time I wished to buy a load of hay?" And this was meant with no discourtesy to the legislative branch of the city government. It was simply an outburst of vexation at restraints placed upon conduct to which he was not accustomed as a manager of large private interests.

If a city is to undertake the conducting of everyday business enterprises and measure cost of production with private organizations, then it becomes imperative to so change the laws as not to leave its officers working under such a tremendous disadvantage as compared with their outside competitors.

Our democratic form of government, which I believe to be such a good one for doing that which a government ought to do, that is, securing to the members of the community their just rights, is, in my humble opinion, a flat failure when it undertakes to enter the mercantile arena. That sort of thing may thrive fairly well under a monarchical form of government. Where, as for example in the city of Glasgow, "It is the almost uniform practice to appoint as permanent chiefs or superintendents of departments the most thoroughly qualified men who can be secured \* \* \* at the head of police, fire, water, gas, cemetery, park, engineering and other departments are to be found men of special fitness and training, who are selected for administrative ability as well as for expert knowledge, and whose security of tenure, for so long as they deserve it, adds to their faithfulness and usefulness. \* \* \* It is usual to advertise a vacancy; and the committee most directly concerned make their choice from the applicants, and then recommend to the full council for action. If a chief of police is wanted for a town even of moderate size, there are likely to be applicants by the score or hundred from all parts of the United Kingdom."

One can readily understand how under such conditions a good and stable public service may be created and maintained, that would in a manner approach in efficiency private management. But under our system of short terms and constant change; where elections, appointments and removals are constantly taking place for reasons having no bearing whatever upon the real points at issue; where the appointment of a superintendent of public lighting, or an inspector of garbage and sewer traps and the like frequently hinges on whether or no the applicant declares a belief in the crime of '73 and kindred irrelevant issues; where



costly deadlocks, due to partisan differences between executive and legislative branches of the government, are not only possible but the order of the day; where, in short, that skill and usefulness which arises only in the school of experience is not taken advantage of; where character and ability in an officer or clerk are matter of secondary consideration; under such a system of administration the widening of the scope of the government's duties by making it a purveyor of merchandise as well as guardian of the peace will surely sooner or later prove to be a serious error.

Removing industries from channels wherein the penalty for bad management is extinction, and placing them in hands where there is practically no penalty at all, means in the end a decided loss to the community. I will venture the statement with considerable confidence that there is not a public executive in this audience who does not honestly believe that if he were placed in full charge of his city's affairs, given the same tenure of office and plenary powers as is, for example, given the president of a railroad by the stockholders; in other words, if he were permitted to conduct the city's business as he is permitted to conduct his private business, he could give the city a more efficient service than it now receives at a reduction of from ten to twenty per cent. in outlay.

Here, however, I can imagine a rather impatient interruption. "Granted," it will be urged, "that there is waste in the public service even to the extent that you allege, yet on the other hand the exactions on the part of private corporations are so unfair and onerous as to more than make up for loss sustained by reason of the comparatively inefficient public service." Or to use the words of Professor Bemis: "Whatever else may be in doubt regarding municipal ownership, it is clearly established that charges to ordinary private consumers are less under that system than under private ownership." It is quite confidently asserted that actual experience shows that where municipal plants have been installed the cost to the public and to private consumers has been reduced. By way of proof we have submitted the usual list of costs under municipal and private ownership. It does not seem to occur to the gentlemen presenting these lists that municipal accounting is as loosely carried on as is any other branch of city work. Skilled accountants are rare in public offices, and even when they are obtained they are seldom held for any length of time. There is little risk in stating, after looking over the lists of municipal plants, that in many if not in most of their offices a double-entry book is unknown. Take up almost any of the published annual reports, whether from large or from small cities, and you will notice little that resembles the balance sheet which is turned in for the inspection of any private board of directors. Almost invariably these reports are only long lists of receipts and disbursements in detail with but little attempt at generalization. I have still to see the first city report, and I have seen many, that shows any outstanding liabilities other than bonds and notes; or that gives a clean statement as to how the municipal corporation stands as a whole.

Some years ago I had occasion to examine into some reports published by the state of Ohio as to the cost of making gas at the state's plant. Figures were published and spread broadcast, which were so low as to cause many a private corporation to squirm. I examined the plant itself as well as the published reports. The most astonishing thing connected with the whole affair was the admission on the part of the superintendent that for some times six months at a time no records at all had been kept. The state possessed no station meter or other meters to speak of and about everything was guessed at. It was therefore no surprise to find the official report showing that the output exceeded the amount of gas made. With revolutions in the political wheel came also changes in superintendents. One of these complained rather bitterly as follows: "Notwithstanding the fact that I expected to find the works in a bad condition, I certainly did not expect to find them in such a dilapidated state as I did. There were no retorts in the works fit for use; in fact, about everything had been exhausted and nothing replaced that could possibly have been avoided. I suppose in anticipation of a change in administration, I am satisfied that the expense of making these necessary repairs, and to enlarge sufficiently to meet all demands, would be equally as much, if not more, than to build new works with capacity to meet all requirements for years." A further inspection shows that the lowest cost was reported by the superintendent who had let things go to ruin, and as soon as the works were in good condition strange to say the cost rose about 25 per cent. Evidently no trustworthy invoices were taken.

Of course I do not mean to be understood as holding that all municipal plants make as inaccurate returns as did this state plant, nevertheless the conditions which permit this loose method of accounting surrounds all city governments as carried on to-day. Reports to private directors must be at least approximately correct. Managers must know what they are doing. Their means are limited and losses cannot possibly be shifted on others. One may therefore rest assured that the charges made by private concerns are in fact all that the service costs the consumer. On the other hand, when a municipality reports as placing on the market any service at a given figure there is no assurance whatever that this figure represents the real cost.

On November 21st, 1898, in the city of Springfield, Mass., my native city, by the way, the committee on lighting streets reported in part to the board of aldermen as follows: "The committee on lighting streets, who were directed to investigate and report on municipal lighting, respectfully submit the accompanying report, after a most careful and thorough investigation. To aid us in our investigation your committee sent out a list of questions to cities employing the municipal plan and to cities buying their lights from private corporations. Out of fifty circulars sent to cities contracting from private corporations, we received thirty-four replies, which were tabulated as shown by attached table. Out of the same number of circulars sent to cities using a municipal plant only eleven replies were received, and the answers were so indefinite that a more concise list of questions were sent out, and to a second circular we received seventeen replies. These were tabulated in the same manner as those from cities with private plants, and the copy is attached. We found the answers received from municipal plants very unsatisfactory, and we must say, in some cases, inaccurate, as the answers received from one city were very different on the two circulars sent, and we are advised that on four requests for information similar to our own, no two were alike. This arises principally from the way in which the cost is figured, but the result is very unsatisfactory and misleading."

This unsatisfactory condition of public reports and statements is not necessarily to be attributed to intentional dishonesty or attempts at misleading, but to loose systems of accounting and the laxity in method that seems to be the concomitant of public work. I can hardly conceive it to be possible that any one having any familiarity with private corporation work, and at the same time knowledge of how public affairs are conducted, can place any reliance whatever upon the statements of alleged cost furnished in the general city reports. I should certainly advise any one who desires a knowledge of the real state of affairs to hold such reports with a very light hand. These tables of cost presented are not by any means to be taken as proving the advantage of municipal ownership, nor are they to be accepted in evidence unless the statements have been verified by parties competent to carry on an investigation. I have reasons for believing that no such verification has been undertaken to any considerable extent.

Before drawing conclusions a few remarks concerning franchises and their values would not be out of place. On this subject, although much has been said and written, there seems to be little really understood. One would be led to believe from the very generally expressed opinion that a franchise is a something at the disposal of the community for which almost any amount of remuneration can be exacted. Such a notion is certainly a very mistaken one, as the value of any particular franchise is susceptible of quite accurate calculation. Granted that a municipality has the power to collect in return for franchises given large sums of money, there are still questions of equity involved which make such demands for remuneration matters of a doubtful propriety. A grant of a franchise, of the kind here under consideration, is merely the grant of the right or privilege of using the public highways for supplying the community with some merchantable commodity or rendering it a service. Any one has, of course, the right of using these highways for delivering merchandise who chooses to do so, and without any need of securing a permit. A special permit is only required when such delivery necessitates the permanent appropriation of some part of such highways. An electric light, gas or telephone plant is in reality no more of a "public service corporation" than is a foundry or an ice-house. The former industries have received a particular designation only because of the peculiar conditions under which a delivery takes place. The so-called public service corporations differ from other corporations only in the following way: If a foundry delivers wares to a customer

it is a matter of little or no concern to outside parties. The public service corporations, however, in dealing with certain individual members of the community, by their permanent appropriation of public property, encroach more or less upon the rights and freedom of third parties. It is therefore necessary that the community as a whole regulate to a certain extent the manner in which these industries are conducted. Disinterested third parties should be relieved as much as possible from all annoyance and expense. What now should the city exact when it grants a franchise? How determine its value?

Perhaps the best way for getting at the value of a franchise is by using as an illustration bond values. The amount of premium a bond will bring in the open market, assuming the city behind it to have good credit, is determined mainly by two items: First, the rate of interest; second, the length of time the bond has to run. Long-time bonds as a rule are preferable as an investment and will consequently bring a better premium than short time bonds. The main determining factor, however, is the rate of interest. If an investor has ample opportunity for placing his capital at 3 per cent. for a reasonable length of time then it becomes plain that a 3 per cent. bond would draw from him no bonus or premium whatever. If a municipal bond bears 4 per cent. on its face value, and is a twenty-year bond, an investor seeking to place his money on a 3 per cent. basis will offer a premium of 14.96 per cent. If the bond bears 5 per cent. he will increase his premium to 29.92 per cent. If the bond is a 6 per cent. bond the premium rises to 44.87 per cent., and so on. The higher the rate of interest the greater the bonus or premium. If, on the contrary, he can find ready investment at 5 per cent., a city bond at 3 or 4 per cent. could only be floated at a discount. The city is always in a position to regulate the size of any premium by the control it has over the rate of interest the bond is to bear.

We have exactly the same state of affairs when a bonus or a payment for a franchise is under consideration, with this difference: Bond interest being a fixed rate of profit, premiums can be calculated with accuracy. In the mercantile business there is a greater factor of uncertainty due to the lack of positive assurance as to just what the gains will be. We have here an element of risk for which a proper allowance must be made by way of safety. As in the bond issue the rate of bonus a franchise will bring is determined partly by the length of time the franchise has to run, but mainly by the profits that the industry will yield. If good municipal bonds netting the holder 4 per cent. are plentiful, then it is certain that when a city grants a franchise, say for a street car line, it so fixes the maximum fare to be charged as to net, not to exceed 4 per cent. on the investment, the franchise will hardly find a taker at par, at least if there is a premium offered it will be a small one. Fix the maximum fare at such a figure that the net yield is 6 per cent., then if investment is sought at 5 per cent. a bonus will result. The greater the promised returns on the investment, the greater the bonus, or so to speak, the greater the value of the franchise.

One thing now becomes very apparent, and should always be borne in mind, that in the franchise question exactly as shown in the bond issue, the city authorities have the power of regulating the size of the bonus or franchise payment in their manipulation of the rates allowed to be charged. The higher above normal these charges are fixed, the greater will be the bonus. It will also be well to remember in this connection, the greater the bonus, the greater the sacrifice the consumer is made to undergo for the benefit of the taxpayer. On the other hand, the lower the maximum charges permitted the smaller is the value of the franchise. Franchises floated at a discount sacrifice the taxpayer to the consumer.

According to my mind, the ideal franchise grant would be one which fixed rates to be charged at such a figure as to reduce it substantially to par. No bonus or payment would be forthcoming; at the same time the best interests of the consumer, who after all is the real person to be satisfied, would be subserved. Whenever a franchise is granted and a large payment is exacted as one of the conditions of the grant, then it is very evident that the city authorities have not been mindful of the interest of the consumer, but have compelled him to shoulder, in addition to the paying market rates for his franchise, an extra share of the public burden.

If municipal officers when they undertake to grant a franchise or to enter into a contract with private parties for furnishing certain services to the city are alive to the situation, or, in other words, if they understand their business; if they have what they should possess, a reasonable accurate knowledge of what it costs to place these

services on the market, they can stipulate such a maximum rate of charges as will allow only normal earnings on a bonafide investment of capital; this means that I and I are practical equivalents.

Returning to our original equations, we find that when a city has made proper contracts, as above described, the quantities I, T and N would equal the quantities E, T and N. This would leave quantity E still in excess of quantity E, which excess would be equal in amount to the difference in efficiency between public and private management. Consequently X, representing the cost to the consumer under municipal ownership would exceed X or the cost under private management by exactly this same amount. This indicates that the tendency for best results lies with private ownership and management.

Investigation does not show that municipal ownership brings into play any heretofore latent factor for cheapening production. On the contrary, it shows that each and every item, including profits which go to make up the one of costs to the consumer under private management, must also be allowed for and to the full extent in computing the cost under municipal ownership.

Generally when a city has a problem of plant ownership up for consideration, conclusions are arrived at with not a tithe of the consideration being given it that would have been given had the investigating gentlemen themselves been requested to sign the subscription list in their individual capacities. The usual course is to refer matters to a committee seldom composed of experts. Printed reports are reviewed, and perhaps a trip is undertaken to one or two cities owning and operating a plant. The inspection is superficial and off-hand statements by employees are taken without question. At times estimates are submitted by experts as to the cost of construction and probable running expense. These experts are generally one of two kinds. Either they are gentlemen interested in the sales of machinery or they are professors or engineers with no practical knowledge of public work. In the latter case the figures are usually honest and reliable, as far as the cost of the plan goes. Where the estimates go wrong is when it is presumed to indicate what the number of officers and employees will be and the size of the pay-roll. Estimates from this source would, I suppose, be approximately correct for guiding a private investment, but when it comes to applying them in public lines they require correction by local bosses.

In order that a community may be well served at private hands; in order that proper contracts may be entered into, it becomes a matter of necessity that public officers be placed in a position to go at the matter intelligently. I would therefore recommend that in the future no franchise be granted or contract awarded to any private corporation of the kind here under discussion, that does not provide, as a condition of such grant or award, the filing of a certified statement with the proper officers of the municipality. This statement shall be filed at stated intervals of time, detail the assets and the liabilities of the concern, the receipts and disbursements, also such other data as will be needed for drawing correct ideas of the cost of the service. The right should also be reserved to a city of verifying these statements at any time from the books of the corporation. These statements would somewhat resemble the reports now made to state commissioners of railroads and telegraph. They should also be published in the daily press as are our bank statements at the present time.

Without statements of this kind to serve as a guide, a city council or a contracting municipal officer is utterly at sea when he undertakes to provide for the wants of his community. Without proper data public officers are utterly helpless. The making of a contract becomes a sort of a grab game in which both sides take a hand, and there is always great danger of injustice resulting to one or the other of the contracting parties. If after such precautions have been taken private concerns still receive more than their just share, then the fault lies not in the fact that the industry is not run by municipal agents, but that the communities interests are.

Under our peculiar form of government and the very general apathy shown by so many of our best people toward assuming the duties and responsibilities that good citizenship implies, a state of affairs that in all probability will continue for generations to come, betterment lies not in the widening of the scope of government, but rather in its restriction. After an experience in both private and public corporation life, covering over a quarter of a century, I should give in answer to the question—should a municipality own and manage these so-called public service corporations?—a decidedly negative answer. As I read

and decipher the problem, the public will be best served by enlisting in its service the skill and economy that accompanies private management. An equitable contract with private parties promises the best results.

### The Municipal Ownership of Public Service Industries.

[Full text of an address delivered by Hon. Gustav Tafel, Mayor of Cincinnati, O., before the convention of the League of American Municipalities, Syracuse, N. Y., Sept. 19-22. Now first published.]

Mr. President and Gentlemen: It is the duty of every city to provide for its citizens pure air, pure water, abundance of light and free highways, all of which are absolutely necessary for the well being, happiness and prosperity of those dwelling within its gates. In order that these essentials of life may be provided without stint, as they should be, and inasmuch as they must be supplied, without a single exception, to every member of the municipality, the task of supplying them should be undertaken and accomplished by the municipality itself, and not entrusted to a private person or corporation.

Should the municipal self-administration of water supply be admitted, the question then arises, shall the self-administration be extended to other public service industries, which although not of indispensable necessity to all citizens, are used by a large percentage of them, such as gas and electric light, street railways, and even telephones.

#### WATER WORKS.

I shall first discuss the municipal ownership of the water supply, as this is admittedly the most important and indispensable of public service industries, a policy of liberal, abundant supply of pure water to every citizen being dictated by public policy. Statistics show (Manual of American Water Works) that in 1896 there were no less than 3,196 complete works in existence in this country, 1690 of which are owned by the municipalities which they supply, while 1,489 are owned by private companies, 17 plants being of unknown ownership. For the purpose of comparing the cost to the private consumer of public and private ownership I selected 36 works operated in the more populous cities under conditions as nearly as possible alike, and despite the drawbacks at present attending the municipal management of works in large cities, owing to the prevalence of the spoils system, I found that the rate charged by them is less than that charged by the private companies. The average is as \$20.45 to \$25.55 annually, per average household. These comparisons, as a matter of course, are but approximate, because of the great diversity existing in different cities in the method of obtaining the necessary supply of water, owing to the distance of the points of delivery from the source of supply, the difference in the price of coal, etc.

As an illustration of the result of long public management of city water works those operated by the city of Cincinnati will serve as a good example, they having been continuously operated by the municipality since their purchase in 1839. The rate charged by the city of Cincinnati is one of the very lowest in the country, amounting to but \$12.50 a year to the average household, and of the 3,196 plants in the country there are but two that have lower charges, viz.: Hartford, Conn., with \$11.60, and Akron, Ohio, \$12.00. Nevertheless, the works are self-sustaining and the indebtedness incurred in acquiring the works and putting them in their present condition has been paid off from the receipts until there is but one million dollars, approximately, still remaining.

These figures apply up to and including the year 1896, and the good showing was made despite the fact that a political ring had for many years extravagantly misused the funds by employing a large number of incompetent persons for political purposes. Since that time, however, under different and more prudent management, the annual cost of operating the plant has been reduced from \$676,031.00, to \$474,253.56 per annum, so that the present city officials will find it possible, without increasing the present rate, of paying from the surplus earnings the interest and sinking fund charges on the indebtedness created by the building of the new six and one-half-million-dollar water works.

This clearly demonstrates that under reasonably good management, even under the spoils system, a municipality can supply itself with water more cheaply and abundantly than under private management. How much greater the advantage, therefore,

could the spoils system now in vogue be displaced by civil service, competent men be retained in positions capably filled, and preferment be the reward of duty well and faithfully performed.

The municipal ownership of water works is therefore no longer an untried problem; its success has been clearly demonstrated in the past; the agitation for its adoption in those cities which do not yet possess their own works argues its continued success in the future.

#### STREET RAILWAYS, GAS AND ELECTRIC LIGHT.

I will now take up the question as to the advisability of having municipal ownership of those public utilities which, although not of such primary necessity as water, are still of general use to the citizens, i. e., street railways, gas and electric light.

It is admitted that it is the duty of a city to furnish its inhabitants with a plentiful supply of pure water, if it be for sanitary reasons alone, and aside from all questions as to relative cost. But as the history of municipal ownership of water works has shown that such public management is preferable not only for reasons of public policy, but also for its greater economy, we are immediately led to ask, why should not the municipality undertake, as a merely business proposition, the management of other public utilities? The use of the streets of a city has a value commensurate with the size of the city, which value should accrue to the community and not to private persons or corporations. It is a notorious and deplorable fact that municipalities seldom receive from corporations a proper return for the valuable franchises granted them—the best way out of the difficulty is the retention of the franchise, provided proper conditions obtain, by the municipality itself. The enormous income derived from these public service industries would then go to the rightful owners, the community.

#### THE INFLUENCE OF CORPORATIONS.

There is another feature of private ownership of public utilities on which I desire to touch.

The profits they make are frequently so large as to make it of great importance to them to have their respective franchises as nearly as possible perennial, and whenever a renewal is about to be had, then large corruption funds are brought into play which are used for influencing the public press, and also directly in bribing the individuals entrusted by a municipality with the conduct of its affairs. It is, therefore, not altogether a rare occurrence to see two or three corporations hold undisputed sway in a community by influencing elections of members of the legislature, of councilmen and other officials with whom they have to deal.

If by self-administration this baneful influence in our municipal life can be eliminated, the gain, from the standpoint of morality alone, would be incalculable.

#### THE MERIT SYSTEM A PREREQUISITE.

Before recommending, however, the extension of public ownership from water works to street railways, gas, electric light, etc., I think it absolutely essential that the merit system be first introduced to prevent the manipulation of these large enterprises by politicians for selfish or political purposes. In fact, I think that such an extension, without the safeguard of civil service, would be a great menace to the community. The discharge of great numbers of old employees and substitution of new and untried ones, which would accompany every change of administration, would certainly result in demoralization of the service, and in great financial loss. In addition to this, the enormous increase in patronage would enable the political boss to more securely intrench himself in power, so that the difficulty of dislodging him (already great) would, under such conditions, be well nigh insuperable.

This danger would be entirely dispelled by the application of the merit system, under which employees after having been appointed regardless of politics and because of fitness for their respective positions, cannot be discharged except by decree of a non-partisan, civil service commission, for cause.

#### HOME RULE.

In order that all this may be accomplished it will be necessary that a greater measure of home rule be accorded our cities and that they be rendered secure against the continuous meddling of state legislatures.

The absurd condition now prevailing whereby members of the legislature, a great majority of whom are from country districts and unacquainted with the needs of



municipal life, should dictate the method of government of a city which they in no wise represent, is in every way repugnant to sound reason and in direct contravention of the spirit if not the plain words of the various state constitutions. How often is legislative aid invoked and obtained by corporations against the express desires of the people of some community and in the face of vigorous protest, and how often do politicians carry out their nefarious schemes through this same agency?

In order that public utilities may be safely managed by a community, it is necessary that there be a distinct separation of the executive and legislative departments of the city government, and that the executive department, to whose charge the management of public service industries should be entrusted, have at its head one official who should be held responsible for its proper administration, and should, therefore, be endowed with the necessary powers.

The so-called federal system, in my opinion, most nearly meets with the requirements of this scheme of government. Under it, the Mayor is at the head of the administration, and on him rests the responsibility of its proper conduct. He is invested with the appointments of the heads of the departments of law, public safety, accounts, and public improvements, with power of removal upon stating to council his reasons for so doing.

The supervision of the public service industries should then, in my opinion, be assigned to the director of public improvements, who would have the power to appoint superintendents of the various industries. The employees under the superintendents, however, should be appointed under the merit system, and removable only for cause by non-partisan civil service commission.

Such a system would, indeed, put great power into the hands of one official, the Mayor, but the good or bad management of the affairs of the corporation could then be brought to the door of the proper person, and the present unsatisfactory condition of dividing the responsibility between many officials would be obviated.

Important questions affecting the management of the several industries would be considered by the mayor, together with his cabinet, consisting of the heads of departments, and disposed of as they arise.

#### IN CONCLUSION.

I would say that the administration of our cities, which have been called the nerve centres of the social, industrial and political world, represent the one problem of government that remains unsolved in our republic. Its present condition, with but few exceptions, is a reproach to our civilization and our form of government. As Prof. Wilcox has said in his "Study of City Government": "Democracy must fight for its life in the cities." And unless the best minds amongst us find it worth their while to turn aside from the pursuit of their business long enough to assist in bringing ordinary business methods and common honesty into the administration of our cities, the consequences will be disastrous.

#### Fallacies of Municipal Ownership.

[Abstract of an address delivered by M. J. Francisco, of Rutland, Vt., before the convention of the League of American Municipalities, Syracuse, N. Y., Sept. 19-22.]

Mr. President and Gentlemen of the League of American Municipalities: In this discussion I shall assume that the functions of a municipality are to govern and regulate. It is a well established axiom that to govern successfully requires that one shall be wholly disinterested, while ownership implies the greatest self-interest. Therefore, we have two propositions that are directly antagonistic. The experience of years has demonstrated that at the present time all business enterprises require rare ability and experience, if not genius, to succeed. Great financiers and successful men have devoted their lives to the study and practice of their trade or profession. How is it possible then for municipalities to expect such qualifications from officials whose term of office is for one or two years?

Permitting a municipality to engage in speculative ventures or commercial industries involves a most serious question, reversing the policy that has governed cities for hundreds of years, allowing them to assume all the hazards, risks and liabilities that attend the investment of money in business enterprises. In doing this the city abandons its governing power, for which the municipality was created, and becomes a speculator and a competitor for gain, and if it is electric lighting, in case of a profit,

those who use and pay for its production are taxed for the benefit of those who do not, while in the case of a loss all parties owning property are taxed for the benefit of users of electric light.

Judge Dillon says: "The legislature should be prohibited from allowing municipal corporations to engage in extra municipal projects or to incur debts or levy taxes for such purposes; to clothe them with powers to accomplish purposes which can better be left to private enterprise is unwise. Their chief function should be to regulate and govern. To invest them with the powers of individuals or private corporations for objects not pertaining to municipal rule is to pervert the institution from its legitimate ends and to require of it duties it is not adapted satisfactorily to execute."

If the municipality had a right to assume these powers they could absorb all business and manufacturing, sell all goods and control every branch of trade. This would destroy competition, stop all development, and make the restless masses helpless and dependent upon the municipality; mere serfs in fact. Imagine for a moment the condition of the United States if all municipalities were to adopt this system, with the well known working plan of American politics based upon the familiar saying "To the victor belongs the spoils," and these spoils available when either party is victorious. We should have all industries placed in charge of incompetent political tools, and as Prof. Whitney says: "Every new position placed at the disposal of the city officials tightens the grip of the ring boss upon the treasury of the city."

The management of these inexperienced politicians would be so unwieldy that there could be no accountability, no economy, and the city would become an instrument of oppression which would eventually result in anarchy. It is fear of such an army of office holders that causes conservative men to look with undisguised dread upon the paternal tendency of municipalities, for the trend is toward socialism and they know that there is reason for caution.

We are told that competition is a failure. Then why not have regulation by law? It is and can be successful and the experience of cities and states proves that this is the true remedy, and not municipal ownership. Massachusetts has a commission to control and regulate business and prices charged, stipulate the amount of stock and bonds that may be issued, control all competition. If any taxpayer or municipality feels aggrieved by the acts of the private corporation or prices charged they can at once apply to this commission for relief, which is seldom refused. By this system of regulation and control the interest of the public is protected and at the same time the investment of private capital is encouraged and fostered.

It is claimed that municipalities have operated water works successfully. Then why not electric lights? There is no analogy between the two. Nature furnishes the water free and all that is necessary is to conduct it to the place where it is to be used. The apparatus required is simple and plain, not liable to accidents, has been in use for a generation and will be used for a generation to come. There is no manufacture, it is simply the distribution of a natural product, while the outfit for an electric light plant and the manufacture of electricity requires the most intricate and complex machinery known to man, and is changing and being improved constantly. This delicate apparatus is subject to accidents of all kinds and a heavy loss in transmission. \* \* \* With such obstacles to contend with, how can we expect success in a city plant operated by inexperienced men, with constant jealousy and bickering between the managers who are members of council, made up from politicians of opposing political parties?

Hon. Charles Waring said "that he favored the purchase of street railways in Great Britain, but that in the United States it would be utterly out of the question on account of the attendant political evils."

The restless, tireless brain of the inventor may evolve apparatus in the next few years that will revolutionize the business and the machines in use at the present time will become worthless, not because they are worn out, but by reason of new invention which can produce the light at so much less expense that it would necessitate "scrapping" the present outfit and purchasing the new style. Private companies have had this experience in the past and doubtless will suffer in the same way in the future. Why then is not a municipality liable to the same loss if it embarks in the business?

It is expected that a great revolution in the methods of generating electricity will be adopted in the near future and the plan is even now being agitated of generating it directly from coal, thus avoiding the expense of steam and its attendant ma-

chinery. If this plan succeeds the hundreds of thousands of dollars that municipalities have and may invest in the present style of machines will be relegated to the scrap pile. Electrical invention is in its infancy. When it has attained its full growth mankind will look back with wonder at the ignorance displayed by the people of the present generation.

The public have been deceived in reference to the cost of lights when furnished by the municipality. Municipal accounts are so kept that in many cases it is impossible for the authorities themselves to ascertain the cost, and the persons in charge have a direct personal interest in making a favorable showing. The objection made by taxpayers who oppose municipal ownership of business enterprises is a strong inducement on the part of officials who favor it to make the apparent cost as small as possible.

The political pressure for extension of the service without reference to profitable returns is irresistible. It is well understood and acknowledged that strict economy and the best business methods necessary for success are not considered under political management. It is useless to argue that politics will not creep into the business. History proves the contrary, and parties now announce that they favor the system as an inducement for votes. Ex-Mayor Hewitt says, "however well disposed the officers of a city may be toward the proper performance of their duty, they are necessarily constrained and overruled by the exigencies of partisan interests, and compelled to reward political service by public office."

In 1885 I engaged in the electric lighting business and in 1888 assumed the entire management of the business. At this time the city electrician of Chicago, who had charge of the municipal plant of that city, published a statement claiming that the entire cost to the city of producing a 2,000 candle power arc light, burned every night all night, was only \$69.35 per lamp per year, including interest and depreciation. How was this done? I determined to ascertain, going to Chicago to make a personal investigation, intending to return with their secret of producing the lights at that price, and adopt the plan in my own station. After carefully and thoroughly examining their business and accounts I was astounded to find that the lights were costing \$165 per lamp per year. When I disclosed these facts regarding cost of lights in Chicago I was assailed by the advocates of municipal ownership and accused of misrepresentation, juggling the figures, and distorting the facts. It was again and again reiterated by these advocates that the cost did not exceed \$69.35, and these figures were used with alderman as a basis all over the country. When the new controller came into office he called upon the same city electrician of Chicago for a statement in detail of the expenses for light, and this disclosed the true condition and showed that the operating expenses alone were \$96.64 per lamp per year; if we add interest, water rent, taxes, insurance and depreciation, the cost is \$167 per year.

Advocates of municipal ownership have furnished statements purporting to give the cost to taxpayers of the lights when a municipality owns the plant. These statements are not only incorrect, but deceptive and can not be sustained. In a recent work it was claimed that the total cost of an arc light at Swanton, Vt., was \$26.59 per year. The records of that village show that the operating expenses were \$2,614.94; add interest at five per cent. upon cost of plant gives \$2,120.18; with five per cent. depreciation we have \$2,120.18, making a total of \$6,855.30; deducting from this amount the total income from all sources, \$3,946.35, leaves \$2,908.95 as the cost to the taxpayers for 20-arc lights, being \$145.44 per year. Their labor account has increased each year, and also bills for repairs, the account for 1897 being more than double what it was two years previous. They are levying taxes to meet the operating expenses and interest upon their debt, and nothing is provided for a sinking fund to pay the principal when it matures. They have incurred a debt of \$42,403 for this electric business. The grand list of the village is about \$5,484; therefore to pay off this indebtedness it will require a tax levy of over 750 per cent. on the grand list.

Detroit is conceded to be the best municipal plant in the United States, and when the system was adopted the taxpayers were told that the offer made by the private company would be "cut in two" and that laborers would have "better pay and shorter hours." These were the promises and assumption made to induce the taxpayers to consent to the adoption of the system. Experience is a good, but often an expensive, teacher, and the people of Detroit are realizing the fact.

In 1893 the private company offered to make a contract for ten years at an average price of \$102.50 per lamp per year. Those advocating municipal ownership claimed

that they could "cut this price in two;" therefore to do this they must produce the lights for \$51.10 per lamp. The report made by the authorities in 1897 stated that the operating expenses were \$64.19 per lamp, and the 1898 report makes operating \$51.85. If taxes, insurance, interest at 4 per cent, and depreciation at only five per cent, were added to cost as given by the city for operating expense, it would make the cost for 1897 \$106.36, while for 1898 it would be \$94.17 per lamp. In above figures nothing is allowed for sinking fund; they have \$650,000 in bonds outstanding. It is well known that with thirty-year bonds one-thirtieth of the amount must be provided for each year and that this item is as much a part of cost as the labor or coal account. In the case of Detroit \$21,666.66 per year must be provided to meet these bonds as they mature. This would add to the cost of lights in 1897 \$13.85 per lamp, making a total for that year of \$120.21 per lamp, and for 1898 it would add \$11.90, making total for that year \$106.07.

It will be seen that cost for 1898 was \$12.34 cents less than it was in 1897. How was this accomplished? By putting the men on a salary and not allowing them anything for overtime, also reducing number of men and requiring those left not only to do work of men discharged, but caring for 180 additional lights. In 1897 they burned 1,564 arc lamps and employed 30 men to trim and care for them, while in 1898 they compelled 26 men to trim and care for 1,744 lights. This caused a strike of the trimmers, and lamps were out for 4,292 hours. In 1897 they employed six engineers and seven firemen, while in 1898 they only had five engineers and six firemen. In 1897 the seven firemen handled 15,032,230 pounds of coal, while in 1898 the six firemen were compelled to handle 17,075,525 pounds of coal, showing that notwithstanding the business required 2,043,395 pounds more coal in 1898 than in 1897, they forced six men to not only handle what the seven men handled the year before, but 2,043,395 pounds additional, and in 1899 the six men were compelled to handle 3,134,200 pounds more coal than was handled by the seven men in 1897. In this way they reduced the cost per lamp \$10.30 in 1898, while they only made a reduction of \$2.04 in all the other branches.

In 1899 they made a reduction of \$5.39 per lamp, \$3.29 of which was taken from the men's wages and \$2.10 from the other departments. This shows that nearly all of the reduction for the past three years has been effected by taking it out of its employees' wages. Of course it is easy enough to reduce cost if you adopt the English plan and grind it out of the men's wages, but how are they to reconcile the statement made to these laborers when they installed the plant that wages would "be higher and hours shorter."

The plant has only been running since April, 1895. Now the lighting commissioners say some of the apparatus must be changed for larger machines. This means selling the present apparatus as second-hand machinery and old style, which will not bring fifty per cent. of its cost. They have called for an appropriation of \$38,000 for this exchange. How much of this is a dead loss? It is just such changes and conditions that have convinced practical men that their depreciation account is insufficient. They have charged to this account during the past four years \$21,295.11 per year. Suppose that amount is charged off every year for 38 years, then they only have accumulated \$809,214, while the cost of plant is given at \$813,803; besides no provision is made for a sinking fund to pay the bonds of \$650,000.

They tell us that the corruption and frauds of the present day have been caused by the acts of private corporations, that they buy and bribe city officials and that municipal ownership will stop all of this demoralization and misrule under which cities are suffering. If this condition exists, as they claim, and city officials can be bought or bribed by corporations, is it not certain that when such men have the direct handling of the millions involved where the city owns the plant they would supply themselves with funds at the city's expense? If the man was dishonest in the first case would he not be equally so in the latter? If we were to believe their statements we must concede that all the scoundrels in this country belong to corporations and that no others are admitted to such companies, and that none of this class were ever found among politicians or ring bosses.

There must be two parties to bribery. The representative of the corporation, no matter how venal, would never approach an official for this purpose unless he had been given a plain intimation that the official was willing to participate in such a deal. From the socialist's standpoint there is nothing dishonorable in the official accepting the bribe, but the party representing the corporation who offers it is the greatest scoundrel in existence. Are not both equally guilty?

The records and evidence disclosed in

New York and other cities shows plainly that many seek such offices with the expectation of such offers and are figuring for what "there is in it." As Andrew D. White once remarked, "with a few exceptions the city governments in the United States are the worst in Christendom, the most expensive and the most corrupt." The remedy for all these evils complained of is simple, elect men of integrity and responsibility to these offices who can and will protect its citizens against not only the corporations, but the bosses and political thieves as well. Until this is done all the theories of municipal ownership on the face of the earth will not convert a dishonest politician and cause him to renounce his hunger and greed for the emoluments and pickings to be obtained while occupying some official position.

Judge Dillon, the highest authority on municipal law, says: "Our large cities are encountering the perils of corruption and fraud on a gigantic scale, engendered by the large revenue and official patronage at their disposal and the disinclination, often the steady refusal, of the substantial citizens to take a controlling part in the management of municipal affairs." The whole foundation of municipal ownership is based upon the assumption that inexperienced hired employees of a city who have not a dollar at risk, and in many cases have been given the position as a reward for helping some political aspirant to office, can and will run the plant and manage the business more successfully than members of a private corporation, notwithstanding the latter may have nearly all their property invested in the enterprise and a failure means ruin for them. Is it not reasonable to suppose that men under such conditions will give closer attention to business and guard and investigate every branch and detail of its work?

Every one knows just how an election is managed in American cities. As soon as a man is elected he must pay his followers for their support by distributing the offices at his command, and as he has been elected by the political leaders' management, he must acquiesce in their demands, no matter what the result may be upon the affairs of the city. This has been the rule of the national government as well as municipalities, and an official in the post office department once said: "The blind policy of substituting inexperienced for experienced men comes at every election; whole lines are stripped of their experienced men and the creatures of politicians are put in their places." The majority of voters in all cities are practically non-taxpayers; that is, they pay only a poll tax and therefore it is immaterial to them what the expenses are, provided they can secure the favor of the ward boss, and this party seeks every opportunity of impressing upon them his ability as a political fighter.

[At this point Mr. Francisco presented statistical statements to show that municipal ownership had proved a failure in a number of cities.]

When the advocates of municipal ownership find themselves unable to disprove the facts disclosed under municipal management in this country they immediately fall back upon Glasgow and the wonders achieved there by municipal ownership. The conditions are not the same in Glasgow as are found in this country; the government is entirely different and the political situation that exists in this country is not found there. Wages there are less than half those paid in this country. Conductors on street cars are paid 93 cents per day the first year and \$1.04 the third, while conductors on street cars in New York are paid \$2 per day the first year and \$2.25 after that. The average of wages for the railroad men in Glasgow is 78 cents per day, while in New York it is \$1.88. Here we have a difference of more than 100 per cent. in wages alone.

And one who has traveled over the street railroads in Glasgow knows perfectly well that the whole equipment and accommodations are antiquated and behind the age, while the service furnished there would not be tolerated in any city in the United States. We are told that profits or revenue from the street railway in Glasgow is so large that it pays all the expenses of the government, while in fact the roads are not operated for purposes of producing a revenue to meet current expenses of the municipality. Instead of there being no taxes in Glasgow they are more burdensome than in this country. Rents are taxed twelve and one-half cents on every dollar that a man pays and the owner of the property has to pay the same amount of tax. Besides this, license taxes are levied. You pay a tax for every servant you employ in the house, also on every horse or carriage, in fact you cannot turn round without running against a tax collector.

Mr. Robert Crawford, of Glasgow, a strong advocate of the system in that city, says: "Before I came to this country I saw

no reason why American cities should not adopt municipal ownership and wondered why they had not done so. But now that I have obtained an insight into the conditions that prevail in your cities I have entirely changed my views. As things are now in your cities, municipal ownership is an impossibility. Success in that great undertaking is out of the question so long as party politics figures in municipal elections and so long as city offices are used to reward political work. With the conditions that exist in American cities to-day, municipal ownership is utterly impracticable. It can never be a success until the system of political rewards is entirely divorced from city government."

The financiering plan of socialists and economists, as given in a book lately published, is certainly original. They say: "The bonded debt incurred by a private company is looked upon as an investment and not a burden; it is never to be paid. While, on the other hand, in a public industry a debt is a burden to be liquidated as soon as possible." That is, if a private company issues bonds it is so much clear gain they will never have to be paid, but if the city issues them they are a debt and must be paid. Perhaps some of our learned friends will tell us how a mortgage given by a private company is an asset, while the same mortgage if given by the city is a liability. Yet such arguments are advanced in support of municipal ownership.

If the advocates of municipal ownership desired to give a fair comparison between private and public ownership and furnish taxpayers facts, they would compare the cost by the two systems as shown at the present time; instead of this they quote prices charged by private companies ten years ago, when everything cost more than three times what it does now, and then compare the cost of the municipal plant at the present day. In 1888, when the private companies were furnishing the lights, the dynamo used cost \$43.20 per arc, while lamps cost \$50; now the dynamo would only cost \$19 per arc and the lamps \$22.50. Carbons cost then from \$40 to \$50 per thousand, now they can be bought for \$10.

At the present time private companies are furnishing lamps where water power is used for from \$60 to \$70 per year, instead of \$150 as charged ten years ago. Therefore it is plain that in their comparisons they do not wish to furnish taxpayers facts, but try to sustain their hobby regardless of facts. The fact that a large number of cities, after investing thousands of dollars and trying the system and finding it impossible to succeed, have abandoned the business is conclusive proof that the statements made by the advocates of municipal ownership as to cost of lights are incorrect, for is it reasonable to suppose that if the lights only cost the amount these advocates claim, the system would have been abandoned and a contract made with a private company at a higher price? In this list are found Carrollton, Ga.; Michigan City, Ind.; Xenia, Ohio; Marcaline, Mo.; Tipton, Iowa; Portland, Oregon; Moline, Ill.; Philadelphia, Gravesend, L. I.; LeRoy, N. Y.; Findlay, Ohio; Greenville, S. C.; Stockton, Kan.; Audubon, Iowa; Stockton, Mo.; Hudson county, N. J.; Madison, Ind.; and many others. In every one of these cases cited thousands of dollars were lost in their attempts to manage a business enterprise.

Why is it that advocates of municipal ownership constantly decry private corporations? Is it for political effect or to cover some of their own schemes? If we could roll back the wheel of time for one hundred years we should find people trucking their grain to market with ox teams, travelers wending their way through the country upon horses and in the old lumbering stage coach or the prairie schooner, dragging its slow way across the continent. Letters and papers delivered from five days to nine months after they were written or printed. Transactions in London not reported in New York until weeks and months after they occurred, while any communication with California was almost impossible.

In place of this crude and expensive system the business man of to-day can breakfast in New York and dine in Buffalo, or he can leave the Atlantic coast on Monday, climb the Rocky Mountains, covering 4,000 miles of space, and bask in the genial air of the Pacific coast on Friday. Sit at his breakfast table and read the accounts of what was done the evening before in England, China, South Africa, and in fact, news from every civilized country in the world. Stand at his counter in New York or Boston and talk with his agent in Chicago. Flash a message round the world and receive an answer in twenty minutes. All of these wonders are the creation of private corporations. It is these corporations that have made America what she is, the greatest and most powerful nation upon the face of the globe.



### Municipal Ownership in Practice.

[Full text of an address delivered by Hon. F. G. Pierce, of Marshalltown, Ia., before the Convention of the League of American Municipalities, Syracuse, N. Y., September 19-22. Now first published.]

Mr. President and Gentlemen:

I have the privilege of representing in this great convention the city of Marshalltown, Iowa. It is a little city of 12,000 people that has owned and operated a municipal water works system for the past twenty-three years, and has owned and operated a municipal street lighting system for the past twelve years.

According to the predictions made by many learned and eloquent gentlemen of the results which inevitably follow in the wake of municipal ownership our city should, by this time, be in a state of financial bankruptcy, afflicted by exorbitant taxes, and have become a genuine hot-bed of municipal corruption and incompetency. Certainly a period of twenty-three years is time enough in which their theories should be proven. Some of the claimed evil effects of municipal ownership should have become manifest, and the prediction of municipal incompetence, if correct, become a fact. But, unfortunately for these theories, I do not come to this convention with a calamity message, but with a statement of complete success in the past and bright expectations for the future. Although I am thoroughly convinced that there are many other cities that can bear just as favorable evidence for the cause of municipal ownership, yet I state facts in regard to Marshalltown, because I am well acquainted with local conditions, and for the further reason I can personally attest to their correctness.

During the past few years our tax levy for municipal purposes has been at the rate of fifteen mills on the dollar on a valuation for taxation of \$1,600,000, bringing in a revenue from taxes of \$24,000 or about \$2 per capita per annum. We have levied no tax for water purposes, the revenue from the works being sufficient to pay interest, operating expenses, repairs and for the extension and improvement of the system. Over and above this our city has the use of 191 fire hydrants at no expense whatever to the city. For the coming year we have levied a three mill water tax for the purpose of improving and increasing our water supply. We furnish water to the Iowa Soldiers' Home at five cents per thousand gallons, and to our manufacturing institutions at three and one-half cents per thousand gallons, which is only one-fourth of a cent per thousand gallons more than the cost of pumping. During the twenty-three years we have not had a single agitation for lower water rates, but a year ago the city council, upon its own motion, reduced the dwelling house rates from six to five dollars per annum, and allowed two taps instead of one. Our system is one of the very best in the state, supplied with all the latest improvements, and the envy of all of our sister cities that are supplied by private corporations.

The expense of maintaining and operating the street lighting plant is paid out of the general fund; there is no special tax for street lighting purposes, although we have 109 arc lights of 1,200 candle power that burn all night except upon moonlight nights. We have seven and one-half miles of brick pavement, sixteen and one-half miles of sanitary sewers, over twenty-three miles of water mains and a free public library.

Our total municipal debt is \$73,000, and we could sell our water works and lighting plant upon twenty-four hours' notice for over \$300,000. This makes our net assets about \$227,000, nearly \$20 per capita. Our citizens are a prosperous and contented people, loyal to their city and its institutions, and earnest advocates of the public ownership of all public industries, to be acquired by the people just as rapidly as justice to private owners and our own resources will permit. It would take more than theoretical reasoning and brilliant eloquence to convince us that municipal ownership is not an unqualified success.

### THEORY VS. PRACTICE.

For the determination of the question of the advisability of municipal ownership of public service industries there are two distinct schools of investigators seeking, or pretending to seek, after the truth. On the one hand are the theoretical investigators—the college professors, the men of letters and the amateur students interested in the subject as an economic question. Of this class many are opposed to municipal ownership. On the other hand are the practical investigators, the large majority of whom are city officials, who have not the leisure

to read and study more than a few of the many valuable books and articles that have been written on the subject. These investigators look almost entirely to results, care but little for theory, and they, almost without exception, are honest advocates of municipal ownership.

### THEORETICAL INVESTIGATION.

The opponents of municipal ownership, the theoretical investigators, have, as a usual thing, very little to say about the evils of private ownership. That such evils exist is fully demonstrated by the dissatisfaction of the people in every case where a public service industry is owned and operated by a private corporation. Under private ownership the rates for service are usually higher to private consumers, and the service is usually inferior because the first and prime object of the organization is to make a profit for the stockholder-investor, and this must be done even at the expense of every other consideration, while under municipal ownership service is as it should be, the first consideration, and the stockholders—that is the people—do not even expect a direct return on their investment. In a conflict between dividends for the investor and service for the people the public must expect to lose. In the case of water and light, the tax levy for fire protection and lighting purposes is usually higher where a private company controls the industry, because a private company must have a personal profit out of this service, while if these public needs are supplied by the public no profit is demanded. Under private ownership the corporations owning these services take an abnormal interest as to who should serve the public. Bribes are offered, and sometimes taken. Jobbing of watered stock, water that never runs through the mains, is the usual method of reducing dividends, and thereby offering an excuse for rates for service that many times exceed the actual cost of honest service.

But rather than consider the many and apparent disadvantages of private ownership as a part of this question the opponents of municipal ownership employ their energies in creating unreasonable restrictions, the compliance with which they insist is absolutely necessary for the success of public ownership.

They tell us that private property shall not be taken for public use without fair compensation. I hardly think that there is a supporter of municipal ownership present who does not agree with this proposition. The only trouble is that the private company usually wants more for its franchise than its property. The things that make franchises valuable, the use of the streets, the intelligence and industry of the people, the demand for modern conveniences, these things do not belong to the private corporation, but to the public that created that value. If private property should not be taken for public use without fair compensation, then public property, the people's streets, the people's intelligence, and the people's industry, should not be taken for private uses without fair compensation. The public is usually willing to pay for any private property taken for public use, but it should not be required to pay for those things which always have and always will belong to them.

Some of these friends of private ownership say that all money taken from taxpayers for investment in municipally owned industries is confiscated. If this proposition is true, it is certainly a valid objection to municipal ownership, because any policy that confiscates property without the return of its equal in value is dangerous and unjust. Upon its face it seems a true conclusion based upon facts. But by looking into the subject we find that it is not true in any sense. The same money that a city is obliged to pay a private corporation for hydrant rental or street lights, if invested in a municipal plant, will in a few years pay for the plant, at the same time giving the citizens equal service with a private corporation, and when the plant is paid for, hydrant rental and enormous cost of street lighting will be a thing of the past, and instead of paying out large sums of money for these services the city will actually receive a net revenue from the plants.

If two propositions were presented to you under which you would be obliged in either case to pay one thousand dollars per annum for a given service, but under one proposition the obligation ceases after twenty-five years and you would have property worth every cent invested, and under the other the obligation would never cease and you would never have any property, it would not take you long to decide upon which proposition to choose. Does it not seem to you that your money under the proposition where you received no return was confiscated? Certainly, and so with

private and municipal ownership—the confiscation comes under private ownership. Under municipal ownership it is not a case of confiscation, but a pure business investment. If the proposition from a business standpoint is a sound one, no cry of "confiscation" should prevent its adoption.

They tell us that municipal ownership cannot be made a success without provision for a sinking fund with which to pay the bonds of the industry. Under municipal ownership there is no necessity for paying bonds so long as the amount of bonds outstanding against the works is reasonable in comparison with the value of the industry. Any large industry, whether private or public, will carry a reasonable amount of bonded debt and in the case of both water and light plants, the natural increase of the industries will secure the investments. With 90 per cent. of the business of the country done on credit, such an argument has no especial terrors.

It is claimed municipal ownership will fail because cities do not keep their books in just the manner these gentlemen would wish, and because the expense fund is not kept separate from the improvement fund. If the rates for service are low and the taxes are reasonable the people will not demand a certain system of bookkeeping. If the water is clear and the street lights burn brightly all night the people will not care even if the expense fund and the improvement fund are both entered into the same column. It will be hard to convince the boards of aldermen and the mayors that they are incompetent to decide these questions, or if they do decide them that they will be decided in corruption. And, after all, this is a pure question of bookkeeping which expert accountants can easily solve.

On these and like arguments and on clever theories created to confuse are based the arguments of the theoretical opponents of municipal ownership. They use words instead of facts, phrases instead of figures, theories instead of conditions, and conclusions instead of results.

It is a favorite assumption of these gentlemen that an investigation of this question, to be of any value, must be made by some commission, economist or technical expert, some commission like the department of labor of the United States, which has been carrying on an investigation for several years, at a great expense, and from which we have no immediate prospect of a report; some student of economics, brilliant and well read, but who does not know a dynamo from a voltmeter or a gate valve from a water pump; some technically educated expert, technically educated while in the employ of some great corporation, and acquiring his expert qualifications in manipulating the affairs of some company in order to get every dollar possible out of the taxpayers. They assume that the average city official is not competent to investigate in a logical manner this great question. And it may be remarked that city officials will look with a great deal of distrust upon the disinterested efforts of these gentlemen to enlighten them as to their duty so long as their efforts are based upon the theory that municipal ownership must be a failure largely through the incompetence or corruption of municipal officeholders.

### PRACTICAL INVESTIGATION.

The average city official forgets theories and makes his investigation upon an entirely different basis. He may not have as logical a mind or as cultivated an intellect, but he looks at the subject in a common sense light. If under one system he finds high rates, poor service, high taxes, no assets, dissatisfaction and discontent, and if under the other system, with similar conditions, he finds low rates, good service, reasonable taxes, valuable assets, happiness and satisfaction, he will choose the latter system at once even if it is based upon wrong theories and is not conducted according to the rules of professional economists.

It is with the idea of studying the practical results rather than considering different theories that I have made a comparison of nine Iowa cities; taking the four having the next larger population than Marshalltown, and the four having the next smaller. These cities are Council Bluffs, Ottumwa, Keokuk, Muscatine, Fort Madison and Oskaloosa, owning neither water works nor street lighting plants, Boone and Fort Dodge, owning their water works plants, and Marshalltown, owning both water works and street lighting plants. For the purpose of comparison, and to arrive at results, nine cities of whatever size, if the conditions are similar, ought to give a fair idea of the two systems and the results attending each.

The first question of any importance in considering any proposition is, what the result will be in a financial way. Of the nine cities considered in this paper, as I before

stated, three own their water works plants, and one owns both water works and street lighting plants.

Cost per annum.....	\$125.84
No. Street Lights.....	126
Cost per annum .....	\$26,150
No. Fire Hydrants.....	282
Per Capita .....	\$7.02
Total City Tax Collected .....	\$155,925
City Tax Levy, 1898..	35
Valuation for Taxation .....	\$4,456,000
Assets per capita.....	.....
Assets (water works)	.....
Debt per capita.....	\$13.74
Debt 1898.....	\$205,243
Population .....	22,267
City .....	.....

From the accompanying table it will be seen that the six cities with private ownership have an average per capita debt of \$13.63, while the three cities having municipal ownership of water works have an average per capita debt of \$5.58. The three cities owning their water works have in each case a lower municipal debt per capita than has any one of the cities under private ownership. The average assets of the three cities having municipal ownership of water works is \$15.08 per capita, and, of course, under private ownership there are no assets. If the debt per capita of the cities having private ownership was no greater than in those cities having municipal ownership the gross debt of the nine cities would be \$547,834 less than at the present time. If the cities having private ownership, besides having the lower debt per capita of the cities with municipal ownership, had assets equal to the latter, the gross total of the difference in their financial condition would be over \$1,500,000.

It might be imagined that so long as the financial conditions of the cities with municipal ownership is so much better than those with private ownership that the taxes must necessarily be higher in the former in order to account for this condition. But in the matter of taxation also the difference in the amounts collected per capita is greatly in favor of those cities with municipal ownership. In each of the municipal ownership cities the amount collected in taxes per capita is less than in any one of the private ownership cities. The average amount collected in the former is \$2.75 per capita, and in the latter \$4.90 per capita. If the tax collected per capita was the same in the private ownership cities as it is in the municipal ownership cities there would be saved to the taxpayers in these six cities the sum of \$2.15 per capita, or a total of \$146,316 per annum. The city owning both

water works and street lighting plant collects the smallest tax per capita of any of the nine cities.

The three cities that own their water plants have a total population of 30,403, and have 324 fire hydrants, or one fire hydrant to every ninety-four inhabitants and do not pay anything for hydrant rental. The six cities supplied by private companies, with a total population of 90,247, have 952 fire hydrants, or one to every ninety-four inhabitants, for which they pay \$68,054, or on an average of \$71 per hydrant per annum.

The average water tax in the cities owning their water works plants in 1898 was 2.7 mills on the dollar and in the cities supplied by private corporations it was 3.6 on the dollar, so that the taxpayers did not pay within nine-tenths of a mill so much tax for water purposes as they did in those cities where the works are owned by private companies. If all of these cities had owned their water plants, nine-tenths of a mill on the dollar would have been saved in taxes and the cities would have expended the \$68,054 paid for hydrant rental for other improvements.

In the case of street lighting the difference in favor of municipal ownership is even more marked. Marshalltown, the only city owning its street lighting plant, had 109 arc lights, operated at an expense of \$2,367 for operating expenses and improvements. To this amount add 10 per cent. of \$16,000, the entire cost of the plant to date, for interest and renewals, and the total, \$3,967, will make the entire cost for the year. This is at the rate of \$36 per lamp per annum. The eight cities supplied by private corporations paid a total of \$63,298 for the equivalent of 706 arc lights, or about \$89 per light per annum. Marshalltown did not levy a lighting tax, while the average tax for lighting purposes in the cities supplied by private companies was two mills on the dollar. Had all these cities had municipal ownership there would have been about \$40,000 saved in taxes, and if the plants had cost no more in proportion than the plant at Marshalltown for operation, extension, interest and renewals, there would have been saved about \$53 on each of 706 arc lights, or \$37,000, making a total of \$77,000 that would have been saved to the taxpayers.

In nine small cities with a total population of less than 100,000 there would have been saved to the taxpayers \$68,000 in hydrant rental and \$77,000 in lighting expenses, or a total of \$145,000, had all of the nine cities had municipal ownership of both industries. This is \$1.45 per every man, woman and child in these cities.

In the matter of other improvements, such as pavement, sewers and free libraries, the municipal ownership cities are as well provided as those having private ownership. So the argument cannot be raised that those cities having private ownership have invested their income in improvements of this nature. The possession of municipally owned plants does not in any way interfere with the advancement of all the material interests of the city.

The fact is that under municipal ownership the public is better served in both fire protection and lighting service, that the indebtedness of the municipality is less, the rate of taxation lower, improvements greater, and the people better satisfied. Opposed to these facts are the ridiculous qualifications that the opponents of municipal ownership contend are necessary for success. Which should have the more weight, and upon which are you going to base your decision of this question?

It is to-day almost universally accepted that municipalities should own their water works plants. Experience has shown that when a municipality owns its plant the rates are cheaper, the service is better, and the people are better satisfied. Where the water plant is owned by a private company it is generally admitted that it would be better for the city to own and operate the plant if such ownership can be brought about and all private interests and capital invested can be protected. There may be a few who will not concur in this statement, but for all practical purposes it is an accepted proposition. That municipal governments in the state of Iowa have accepted this view is demonstrated by the fact that nearly every city of importance in the state that does not already own its water works plant is endeavoring to obtain control of it, if it can be accomplished by legal and just means. Dubuque has already had its plant appraised with the idea of buying. Cedar Rapids has employed an engineer to draw plans for a new system to be owned by the city. Ottumwa has passed an ordinance providing for the purchasing of the plant there. Oskaloosa is agitating the question so as to be prepared when the present franchise expires in 1900. Council Bluffs, Muscatine, Clinton, and, in fact, almost every city in the state has accepted

this view, and nearly all are taking steps to bring about this result.

If the present tendency toward the centralization of power and consolidation of interests will result in the cost of service being reduced to a minimum, the argument where the water works plant is owned by the municipality for the municipal ownership of the several other public utilities is easy and clear.

The water works station, in most cases, is so situated, that it can be used for the generation of the electrical power to supply the lights for the people. Where this is feasible it reduces the cost of service very materially. The same engineers who run the pumping station can run the power station, the same boilers can provide the steam, and in many ways expense is greatly reduced or done away with entirely. That the cost of service is reduced is shown by the record of the Marshalltown street lighting plant. In 1897, at which time we run our street lights upon the moonlight schedule until 3 o'clock in the morning, the cost per light to the city per annum was \$30, including renewals, interest and repairs. At present we run our lights all night at an expense, as already stated, of \$36 per lamp per year.

Then the steam which usually goes to waste could be utilized in operating a steam heating plant that would bring revenue to the city.

Leaving obtruse qualifications and restrictions out of the question, and making a full investigation of the question of the practical results, the investigator will be inevitably led to the decision that municipal ownership of public service industries is the only satisfactory settlement of this great question.

When the time comes, as it surely will, that these monopolies providing for the needs and comforts of the people, shall be administered by municipalities in the interest of the people a new era will be inaugurated in municipal affairs. Municipal taxes will be so small in consequence of the revenue derived from the public utilities that the burden will not be noticed. Municipalities will take a pride in giving the consumer the very best service obtainable at the lowest rate possible with good business management. Citizens will take a greater interest in municipal affairs, and reforms will be accomplished as the result of wider information and greater intelligence. All the inhabitants of cities and towns will find the comforts of an abundance of good water, gas for fuel, electric current for illumination and power, and reasonable street car fare within their reach, and satisfaction and contentment will rule. When this time comes the cities of America will have done much toward solving the problems of municipal administration.

### Municipal Ownership.

[Full text of an address delivered by Dr. J. R. Robinson, Mayor of Colorado Springs, Col., before the Convention of the League of American Municipalities, Syracuse, N. Y., September 19-22. Now first published.]

Mr. President and Gentlemen:

Increased interest in municipal government during the last decade is the strongest evidence of the increasing importance of urban life upon the life of our states and nation. We are coming rapidly to realize the important fact that our larger cities are moulding our character politically, morally, governmentally, as well as commercially. The reflex influence of city life is such that the conditions therein existing become an index to our entire life and almost if not quite a dominant influence. The first authoritative note of warning came from a profound student of our republic from abroad. This has not been unheeded, and this great gathering is an indication of the universal interest now felt in questions touching municipality government and an earnest of what this movement, one of the most important of modern times, will accomplish.

In advocating municipal ownership of certain public utilities I will not attempt to prove, as some have, that this principle generally adopted will cure all the ills that now afflict, or eliminate all the weaknesses of municipal government. It can only prove to be one among many factors that will promote the moral, political and commercial welfare of our municipalities. Nor is it possible in dealing with this question to lay down a universal law or principle that will apply to all cities regardless of their size, location and environments.

I think we may accept as established beyond controversy that actual experiment has proven that a municipality may own



and operate a public utility such as water works, lighting plants and street railways to the advantage of its citizens, as compared with the operation of the same utilities by private corporations. This principle being established, we have next to look for the exceptions, exceptions caused by local conditions, and by a careful study of those conditions eliminate those cities where municipal ownership is practicable from those where private ownership is more practicable. Each city then, actuated by motives which look only to the public good, will act as local conditions demand, without prejudice for or against any principle or system.

It must be conceded, I think, that there is a time in the life of most young cities of small population when it would be unwise and practically impossible for it to assume the operation and ownership of a water, lighting and street railway plant. The reasons are so obvious that I will not attempt to state them in this brief paper. Private capital under a liberal franchise will often undertake these enterprises, assuming risks that a city would not be justified in assuming. In return for this risk and for the benefits which may follow to the citizens in increased value in real estate and convenience afforded by the operation of a given public utility, a franchise is often granted which is too liberal in its provisions, and, which in time, instead of a blessing may become a grasping monopoly and a menace to good government. It is in the granting of such franchises that the utmost care should be exercised, and they should be issued only under such restrictions as will guard well the future and prevent the franchise from becoming the master instead of the servant of the people.

I assume, however, that with growth in population, advance in science and the mechanic arts, and the addition of new inventions every city of consequence will reach, as vast numbers have already, a place in its history where it will have to decide for or against municipal ownership of public service industries. While character and comfort or material welfare is the desideratum and legitimate end of all government, I hold that morality, public and private, is to be preferred to wealth. The ablest and most conscientious students of modern municipal government conclude that the most prolific cause of political corruption in our cities to-day is the greed for franchises for public monopolies manifested by private capital. This corruption does not end with members of the city government, but extends to legislatures, affects in many instances the press, which is bought or subsidized for corrupt purposes; and to this must be added the judicious distribution of "stock" among citizens of "influence" and good standing, and who later form a bulwark against any movement for public ownership or control, no matter how desirable these may become.

It will be urged by the opponents of municipal ownership that this argument may be turned against us with deadly effect, for, they say, the hands of the political boss will be vastly strengthened by the increase in patronage and political offices which will necessarily follow municipal ownership of public utilities. "Electricity," in its issue of August 30, in commenting upon the programme of this League and upon the superior talent which will take the negative of this question, says: "It is scarcely likely that the gentlemen advocating municipal ownership—who, by the way, are all mayors of cities—will be able to score any important point or bring forward any argument why municipal ownership should be adopted unless for political purposes." I presume that the editor connects the idea of politics with the mayors to whom he refers, but I believe I speak for my honorable colleagues, as I do for myself, when I say that our purpose in advocating municipal ownership is the opposite of that here alleged.

And this brings me to my second argument. I believe that government in the United States will never reach its highest efficiency until the merit system displaces the party system in nation, states and municipalities. Civil service reform has made rapid and encouraging progress especially during the last decade. Its progress has been greatest where its benefits have been most apparent and consequently its extension most strenuously demanded by the people. Thus far our cities have but slightly felt its benefits. The party system here flowers and fructifies most luxuriantly. For some unaccountable reason cities as a whole take less pride in municipal than in state or national government and suffer under wrongs and inefficient administration with stoical indifference. The American people have a habit, however, when aroused,

of enforcing their demands and of getting what they earnestly desire. With increased responsibility, which will come with the municipal ownership of public utilities, will come an increased interest in public affairs. With this increase of interest will come increased knowledge, and with this knowledge will come a realization of the absolute necessity of better municipal government, a condition that can only be reached by a wise extension of the merit system.

I have made no argument from a strictly economic point of view. I have cited no statistics nor made comparisons of cost between private and public ownership. I rest my case upon the statement of belief that though the cost to the people of private or public ownership were the same, the benefits of a higher morality in public life, an increased interest in municipal affairs and a complete extension to our municipalities of the merit system under wise civil service laws justifies and makes desirable municipal ownership of public service industries, including water, gas and electric lighting and street railway systems.

### Municipal Charities.

[Full text of an address to be delivered by Homer Folks, Secretary of the State Charities Aid Association, and until recently an Alderman of New York city, before the Convention of the League of American Municipalities, Syracuse, N. Y., September 19-22. Now first published.]

Mr. President and Gentlemen:

It is a very real pleasure to speak to this company of city officials in behalf of municipal charities. I say in behalf of municipal charities, because I feel that they have a cause to be pleaded before this tribunal. The city nowhere undertakes problems of such delicacy and difficulty as the administration of charity, and yet, in the annual sessions of this body, in other conferences upon municipal affairs, and also in the practical administration of cities, the charities seem to have received less consideration than any other department. By the community, as well as by the city officials, this department seems to be very generally overlooked. On two notable occasions flagrant abuses in the administration of public charity have been the starting point if not the deciding issue in municipal campaigns, but as a rule the public hears little and even seems to care little about public charitable institutions. It may be partly because poverty, suffering and disease are not pleasant subjects to contemplate; and partly because the work of this department affects directly only a small number of people, and does not have an obvious and direct bearing upon the general welfare, as do the fire, health, street and other departments. This is a superficial view, however, for if we look beneath the surface we shall find that this department not only has absolute charge over the lives of large numbers of men, women and children, but that its administration exerts a strong influence for good or evil upon the whole community.

Nearly all American cities are engaged to some extent in charitable work, but the form and extent of their charitable activities vary in different sections. In those states in which the township system of poor relief prevails—the New England states and some others—the cities have generally taken upon themselves the whole range of charitable activities as soon as they have outgrown the township. They have administered out-door relief, have cared for the aged and the sick, for vagrants, for destitute children and for the insane. In the central and Western states, under a system of county local government, out-door relief has generally been administered by the township, while charitable institutions, such as almshouses, insane asylums and hospitals, have been managed by the counties. In these states it has usually happened that the city in its early history has undertaken the administration of out-door relief, but, as to the management of charitable institutions, has remained simply part of the county in which it is situated. This is still true in the second largest city in the country. Chicago has no municipal charities. Cook county manages the almshouses, hospital and insane asylum, to which public dependents from Chicago are sent. Of the first ten cities of the United States in order of size in 1890, eight managed their own charities, while two—Chicago and Buffalo—are simply parts of counties. Of the second ten cities, five manage their own charitable institutions, and

five are parts of the counties in which they are located. In a report which as chairman of the municipal charities I had the honor of preparing for the National Conference of Charities a year ago, will be found a statement of just what each of the largest seventy cities of the United States does for the relief of the poor, and how its institutions are managed. This report is included in the proceedings of the conference, or may be had separately upon application to the writer. I have drawn from it freely in the preparation of this paper.

Logically, as well as historically, the first form of public charity is that of the relief of the poor in their own homes. This is a subject which has vexed the minds of able statesmen in many countries for more than a century. Out of all the turmoil, discussion and experimentation, a consensus of opinion is gradually being reached among those who have given the subject much study, or have had extended experience. Their conclusion is that large cities should not give any public out-door relief. To many this proposition seems revolutionary. It sounds cold and unfeeling; it seems to be a denial of charity. Shall the city not give clothing, groceries, rent and fuel to those in need? Is it not better to give the little help that seems to be needed temporarily rather than offer the alternative of going to the almshouse to become wholly a public charge? Plausible as these questions seem, extended experience in many cities and careful study of the subject answer them in the negative, and declare that material relief given from public funds to people in their own homes causes more suffering than it relieves, undermines the desire for self-support, discourages foresight and thrift, encourages immorality and political corruption, and brings in its train a long series of evils that affect a community to its very centre.

That public out-door relief is not necessary for the humane care of the poor is no longer an open question. Of the forty largest cities in the country, ten give no public relief whatever. These include the large cities of New York, in which public out-door relief was practically abolished in 1875; Philadelphia and Brooklyn, in which it was abolished in 1879; Baltimore, which apparently has never had any public out-door relief; San Francisco, Washington, Kansas City, Denver, Atlanta and Memphis. Another ten of the forty largest cities give very little out-door relief. This list includes the cities of St. Louis, New Orleans, Pittsburg, Louisville, Jersey City, Indianapolis, St. Paul, Providence and Richmond. In another list of ten the out-door relief may be said to be considerable, and in the remaining ten cities it is given freely. These last in the order of the amount of out-door relief as compared with the population, are Scranton, Grand Rapids, Detroit, Columbus, Milwaukee, Toledo, Fall River, Buffalo, Rochester and Syracuse. Curiously enough, in this state the two extreme meets; the large cities of New York and Brooklyn give no public out-door relief, while Buffalo, Rochester and Syracuse give more in proportion to their population than any other large cities in the country. This city in which we are now meeting, has the unenviable reputation of giving more out-door relief in proportion to its population than any other of the forty largest cities in the United States. Its annual expenditure for this purpose amounting to thirty-four cents per capita for the entire population of the city.

No one will claim for a moment that the poor of this city are more adequately and humanely cared for than in the cities of New York, Philadelphia, Brooklyn and Baltimore, nor does this community, notwithstanding its large expenditure for out-door relief, find any less demand upon it for the maintenance of an almshouse. This brings us to a remarkable historical fact, that when the free distribution of public out-door relief has been discontinued, as has been the case in several large cities, and that unexpectedly and abruptly, there has been no resulting increase, but rather a decrease in the number of inmates in the almshouses and other institutions for the destitute in those localities. This suggests the true explanation, which is this, that groceries, rent, fuel and clothing, received not as the gift of charity but as a matter of right, from a supply which apparently is inexhaustible, exert a most subtle and pauperizing influence, not only upon the immediate recipients, but upon their relatives, neighbors and acquaintances. Such relief carries with it none of the unpleasant features of removal to and living in an

almshouse and living therein; it leaves its recipients free to spend their time as they like and to enjoy themselves as they please. It does not deprive them of the companionship of kindred spirits. All these facts encourage people to seek such relief and to continue to receive it as long as possible. It thus encourages deception as well as idleness. By relieving the head of the family from any serious anxiety as to the maintenance of his wife and children, it encourages him to spend his earnings freely and in ways that he may consider most pleasant. It thus promotes intemperance, gambling and vice. It leaves its supposed beneficiaries in a worse plight than it found them, and it has contaminated their friends and neighbors.

If this form of public relief is discontinued then the natural and more helpful forms of charity increase. Relatives do their best to help, friends and neighbors contribute, former employees often give assistance, the church or the Sunday school, and, lastly, the private charitable organizations, may be called upon. All these forms of help are temporary in their nature, do not deprive the family of the incentive to recover their power of self-support, and are not harmful to the community.

I have endeavored to state in ten minutes the results of the experience and study of a great many minds during the past century. Perhaps I should not expect those of you who have hitherto favored public out-door relief to accept this brief statement as final without further inquiry, but I can at least indicate some of the sources from which the best and latest information upon the subject can be had. The most thorough study of the situation in various American cities is to be found in the paper on the "Relation Between Private and Public Out-Door Relief," published in the *Charities Review* for March and April, 1899, and on "Public Out-Door Relief," published in the same journal in May and June, 1898. These papers contain an historical statement of the experience of all the principal American cities. The back numbers of the *Charities Review* contain many other articles upon this subject, and the whole eight volumes are indexed in the last number of the eighth volume (February, 1899), any or all of which can be had from the office of the *Charities Review*, 105 East Twenty-second street, New York. The subject has also been discussed at almost every session of the National Conference of Charities and Correction from 1874 to the present time. The yearly volumes of the proceedings of the conference are to be had from its secretary at 115 Monroe street, Chicago. The volume for 1893 includes a full index of the proceedings for the entire preceding twenty years. A complete set of these volumes and of the *Charities Review* should form part of the working equipment of every city hall, and should be found in the office of every department of public charities.

Many of our large cities, and an increasing number, maintain under their direct control institutions for the care of the destitute; nearly always an almshouse and a public hospital, and frequently an insane asylum and children's home. During the past twenty years there has been an increasing tendency for the state to take charge of two classes of public dependents who have special demands upon its care. These are the insane and destitute children, both being in common law wards of the Supreme Court of the state. We do not need, therefore, to consider the best methods of caring for destitute children, or the insane, but will take up the management of almshouses and hospitals. In all our large cities the almshouse is no longer one single institution, but has become a great group of institutions, among which the inmates are more or less roughly classified. There are those who are able to do some work; those who are unable to work, but do not require medical treatment; there are the aged, the blind, the consumptives, the epileptics, the feeble-minded, and a large number of the incurably ill.

The public hospital likewise develops into a group of institutions. The acute patients are separated from the chronic; contagious cases must be isolated; alcoholic patients should be given separate treatment; provision is needed for the temporary care and examination of persons supposed to be insane, and numerous other branches of hospital service.

In one respect we find a tendency common to most cities in the management of their public institutions, and that is to separate different kinds of institutions and place them under separate official responsi-

bilities. Not many years ago it was a common thing for the city almshouses, hospitals, jails, penitentiaries and insane asylums to be under one department of public institutions, and sometimes all these were united with other and still more diverse interests. It naturally was impossible for one governing authority to wisely administer institutions so different in character, and which should be directed to such different ends. The kind of management that is needed in a prison would be very injurious in a hospital or in an asylum for the insane. It is a grave wrong to associate destitute children with institutions for the care of paupers or criminals. Gradually these classes are being differentiated, and separate departments created for their control. In 1896 New York city divided its former department of charities and correction into two departments, and a little later Boston divided its former institutions department into five departments—for adult paupers, for destitute children, for the insane, for criminals, and a separate department for investigation, registration, tabulation, statistics, etc. A similar movement is one of the first things necessary in any radical improvement of the Chicago, or rather the Cook county, charities. There the board of county commissioners has under its charge the almshouse, the insane asylum, and the county hospital, and, as if that were not sufficient distraction, the same board of commissioners is asked to build roads and bridges, and to perform other important duties.

As to what constitutes the most efficient governing authority of a charities department there is wide diversity of opinion. In some cities we find one, or perhaps two or three, salaried commissioners. In others we find a board, usually of a large number—five or seven or ten—serving without pay, and whose terms expire one each year. Philadelphia, with its five unpaid commissioners; Boston, with its several boards, each consisting of its seven unpaid trustees; Baltimore, with its nine unpaid supervisors of charities, and San Francisco, with its unpaid health department in charge of its charities, have chosen the latter plan. New York, St. Louis and Cleveland have salaried commissioners. The chief advantage claimed for the unpaid board of trustees is that it avoids the evils of partisanship; that its members are more likely to be appointed because of their knowledge of or fitness for such work, and not for partisan reasons; that though one or two mayors appoint members who would use their office for partisan ends, these find themselves in a minority by reason of the slowly changing membership in the board. It is also held such a board can adopt and follow consistently for a term of years a general policy of administration, and can retain in office as superintendents and executive officers of the various city institutions men who have proven their ability without regard to their partisan connections.

The objections to this form of administration are that a board at best is not an efficient executive body; that it creates a division of responsibility, leading too frequently to inaction, or to hesitation and half-way measures; that even unpaid positions can be used for partisan ends, and that if a majority of the board becomes of undesirable character, its bad influence is perpetuated even through better administrations that may follow. The advantages of concentrating power and responsibility in the hands of one salaried official are promptness, and the chance for executive ability to make the most of its opportunities. This plan is more in line with the general system of municipal government toward which we have steadily been working in this country. Everywhere we have been curtailing the powers of municipal legislative bodies, taking away their power of confirmation and their responsibility for appropriations, and concentrating responsibility in the hands of the mayor, and his salaried appointees. This plan does not attempt to evade the possibility of partisan appointments by any special governmental machinery, but relies for its ultimate success upon holding the one responsible official face to face with his responsibility.

We may as well accept the fact that if any given municipal administration wishes to use its charities for partisan ends, it will usually find a way to do so in spite of any special machinery which may have been created to prevent it. We must rather proceed by creating a public sentiment which will make it unwise and unsafe, in a word, "bad politics," for party

leaders to allow factionalism or partisanship to enter into the administration of charitable institutions. The evils that have arisen from allowing partisanship to invade this field are real and are bad enough. Let us briefly recount some of them as they have existed in various cities at various times in the past. Moneys appropriated for the erection of buildings for the sick, the insane, and the destitute have been stolen or wasted, and these unfortunates have been huddled together in unwholesome, overcrowded, dilapidated structures unfit for human habitation, and under conditions which made their cure impossible. The insane are cured, if at all, in a comparatively short period, one or two years. If these precious opportunities for the most skilful treatment, and the most helpful conditions are lost, the diseased condition soon becomes permanent and another unfortunate is consigned to a life worse than mere animal existence. Party politics has sent hundreds, yes, thousands over that road. It has diverted a share of the moneys appropriated for food for the sick in hospitals and in almshouses. It has given them bad meat or no meat at all, when moneys had been appropriated for nourishing food. It has turned out of office men who were wise and skilful, efficient and humane, to put in control for partisan reasons men who were grossly ignorant and brutal or kind-heartedly inefficient, or who openly used their positions for personal or party gain. It is hardly possible even to suggest the extent of the wretchedness, misery, suffering, disease, insanity and death which have been caused by the interference of party politics in the management of municipal institutions in various of our states. As has been well pointed out, factional and party strife have been less civilized than war itself, for between all civilized nations the white flag of the hospital is the emblem and the sufficient guarantee of neutrality, while partisan politics, in too many cases, has not hesitated to include hospitals, almshouses and homes for children in the field that is to be looted and plundered.

While I would not leave out any of the dark features of the picture, I would not like to be understood for a moment as suggesting that such conditions have ever been common, or that they prevail to-day. On the contrary, I am inclined to think that at present many of our municipal charities are in better condition than some critics of municipal affairs would have us believe. Public sentiment, when it has been informed, has always exacted the full penalty from municipal authorities guilty of such offences, and this fact is not forgotten. Then, fortunately, among those who have believed that "to the victor belongs the spoils," there have been many who have made an exception of charitable institutions, and who being in positions of authority have stood guard over charitable institutions, said to those under them: "Thus far shalt thou go and no further." Furthermore, among those appointed for political reasons there have always been many who have developed unexpected qualities of efficiency, kindness and devotion to their work. Those who know at first hand the charitable institutions of our great cities know that among their officials there are many high-minded, humane, capable persons, who under disadvantages and limitations of which we may not know, work unceasingly for the best welfare of those committed to their care. In the name of all these, and in the name of the helpless people who are given into the care of our city institutions, may I not ask, and with all possible urgency exhort, you who hold positions of official responsibility and therefore speak with weight in party councils, to uphold on all occasions and in all presences the principle of no partisan interference with public charities. Forget all else that I say if you will, but please remember this, the thing that, above all others, that I came from New York to Syracuse to say, that almshouses and hospitals should be exempt from party and factional strife.

Permit me a few hasty and disconnected suggestions with regard to the more immediate administration of public hospitals and almshouses. Keep the hospital as separate as possible from the almshouse and the workhouse; do not use prisoners or paupers (many of whom are little better than the prisoners), to take care of the sick people, or keep the institution clean, or prepare the food, or do the laundry work. It is bad economy, and it is most inconsiderate, even cruel, to the patients. Get competent employees for even the subordi-



nate positions and pay them market rates of wages. Above all, in the hospitals secure and uphold the position of the trained nurse. No one factor has done so much to improve public hospitals in every way as the training schools for nurses, first established in this country in Bellevue Hospital, New York city, in 1873. More than one centre of wretchedness, suffering, immorality, disorder and corruption, called a public hospital, has by the coming of the trained nurse been gradually converted into an institution of real beneficence, in which the sick can have the benefit for curative treatment, or, if that be impossible, can pass their latter days in reasonable comfort.

In almshouse management, two things are frequently overlooked. First, the need of careful investigation of applications for admission, so that only those who are properly subjects of public charity shall be received. This is not merely a matter of economy; it is a matter which vitally affects the welfare of the almshouse population, for if admissions are not properly guarded, and too many are received, the buildings become overcrowded, the food supplies are inadequate, the nursing service is overworked, and those who are justly entitled to proper care at the city's hands are obliged to endure all manner of hardships. The second general failure in almshouse management is the lack of any classification of the inmates on a basis of character and previous record. The almshouse population has various elements. A large element consists of those who have spent their lives in dissipation, who have been in and out of penal and correctional institutions, and who are thoroughly vicious and depraved in speech and in conduct. There is also an element composed of persons who are the victims of misfortune rather than misconduct, who have led upright lives, who possess some measure of refinement, and whom daily association with the vicious and depraved is the bitterest cruelty. Accommodations suitable for the former meant constant distress to the latter; food to which the former are accustomed, the latter are unable to eat. I recall one instance of a man who had taken considerable part in the business affairs of New York city, but in his last days came to poverty, and was admitted to the almshouse. Almost by chance, one of the visitors of the State Charities Aid Association learned that through sheer inability to eat the food that was set before him, and to be comfortable under the conditions which were fairly well suited to the bulk of the almshouse population, and through the distress of mind arising from the enforced association with evil characters, he had become seriously ill. Though he had been unable to state any facts to those in charge, which warranted them, in their opinion, in giving him any different treatment or quarters, he was in a condition which soon must have ended in death. Special food and treatment were secured for him, and a little later he was admitted to a home for the aged. Berlin has two different almshouses, one for persons who have never been in a correctional institution, and one for those who have been in the workhouse, jail or prison. Some English cities have made somewhat similar classification. It is entirely possible, and needs only a moderate amount of care and in many cases the use of existing buildings to the best advantage.

Another problem in all large cities is that of the homeless, unemployed and vagrant. In every large city some provision must be made for the temporary shelter of those who have no home and no employment. The matter would be comparatively easy if the applicants included only one class of men. If all were tramps, or if all were honest men, who would work if they could, it would be easy to meet the need. For the tramp we need have little sympathy. Whatever may be the causes which led him to adopt his calling, he is now determined to avoid work if possible, and the only thing for the community to do is to place him where he is obliged to work for his living. The real unemployed, those who would work if they could, needs only temporary shelter and food, and these they should be given, with the least possible injury to their self-respect.

Whatever provision is made, therefore, must include some means by which we shall shift out the one class from the other. To allow them indiscriminately to sleep in halls or station houses, or in lodging rooms connected with station houses, on bare floors or on boards, is a relic of barbarism. Provision must be made for cleanliness, order

and discipline. There should be compulsory bathing, medical examination, fumigation of clothing, clean beds, protection against contagious diseases and a plain but nourishing supper and breakfast. There should also be such investigation of the circumstances and previous records of those who apply more than once or twice as will result in placing the tramps behind the bars of a workhouse or penitentiary, and giving the honest man the best opportunities for finding employment. The municipal lodging house conducted by New York city for the past four years, and of which a full account is to be had in the twenty-sixth report of the New York county visiting committee of the State Charities Aid Association, meets the situation as well as any I know of. Every large city should maintain some such institution unless it is provided by private charity.

In many cities, owing partly to abuses that have been discovered in public institutions, and partly to the apparent economy of the plan, the city authorities have adopted the custom of making appropriations to private charitable institutions, in lieu of enlarging or establishing public institutions under city control, as the need of additional accommodations or new institutions has from time to time arisen. This question of subsidizing private charities is another very large subject, into the details of which we cannot now enter. The city of New York is at present paying something over three million dollars a year to private charities. The comptroller of that city has suggested that it would be better to withhold a considerable portion of this money. It is also the opinion of the Charity Organization Society of that city, and of the State Charities Aid Association, both of which have appointed special committees which have given the subject very careful consideration, that this subsidy plan has in it serious and inherent evils which it is impossible to obviate, and although both deprecate a sudden or sweeping change, both are of the opinion that the custom should gradually be discontinued. The State Charities Aid Association states its conclusions: Those who are interested in the subject will find much of value in the reports of these two societies to the comptroller (to be had upon application to the societies), and also in chapter xvii of the volume on American Charities by Amos G. Warner, one of the foremost authorities of the country on all matters relating to charitable administration.

Although the city should not grant appropriations to private societies, there should always be the friendliest co-operation between municipal and private charities. The city should avail itself of whatever assistance the private agencies stand ready to offer, especially in the way of granting private relief to worthy families in preference to breaking up families and sending them to public institutions. The information contained in the registration bureaus and records of the private agencies would be of great benefit to the city in considering applications for admission to its institutions. Too often the officials of municipal institutions are suspicious as to the motives of private charities, or as to their ability to really do anything, a feeling which is generally reciprocal by the private societies. This is most unfortunate, and its evil effects fall most heavily upon the poor, whom both classes of agencies are seeking to aid. The city charities need the aid and the public support of the private agencies, and the private can only be most useful when they work in accord with public agencies. Every opportunity that comes to a public institution of enlisting the interest of a new group, or a larger number of citizens, should be availed of, to the end that the needs of those institutions, becoming more and more generally known and better understood, more adequate appropriations may be made, and that the work of the faithful public officials may receive its due recognition. Publicity is the

greatest force for the improvement of public institutions, and that publicity is thrice blessed which comes from within by choice, rather than from without by necessity.

### Fire Chiefs' Convention.

The twenty-seventh annual convention of the International Association of Fire Engineers, held at Syracuse, N. Y., August 22 to 25, was one of the most successful meetings ever held by the organization. The reports of the officers for the last fiscal year showed that the organization was in a most thriving condition. The papers and discussions of the convention were of a high order and were listened to most attentively. Some of the papers were printed in the August number of City Government, which was distributed at the convention. The following are the officers elected for the ensuing year:

President—John P. Quigley, of Syracuse. Secretary—Henry A. Hills, of Wyoming. O. Treasurer—D. C. Larkin, of Dayton, O.

Vice Presidents—Alabama, J. H. Screws; Connecticut, A. C. Hendrick; Colorado, W. E. Roberts; Delaware, G. W. Sasse; Florida, A. J. Harris; Georgia, L. M. Jones; Illinois, Carl Moeller; Indiana, J. J. Daugherty; Iowa, George M. Kellogg; Kansas, A. G. Walden; Kentucky, Edward Hughes; Louisiana, Thomas O'Connor; Massachusetts, E. L. Vaughan; Maryland, W. C. McAfee; Michigan, John Kendall; Minnesota, J. R. Canterbury; Missouri, P. P. Kane; Nebraska, John Redell; New York, J. J. Cushman, Jr.; New Jersey, J. B. Stevens; New Hampshire, T. W. Lane; North Dakota, Arthur Bassett; Ontario, P. Provost; Ohio, C. F. Wall; Oklahoma, W. C. Gruber; Pennsylvania, Charles H. Cohn; Rhode Island, A. J. Kerwin; South Carolina, O. G. Marjenhoff; Tennessee, H. A. McQuaid; Texas, H. F. Magee; Utah, James L. Barry; Vermont, M. M. Murrav; Virginia, W. G. Puller.

The exhibits were numerous and attractive, many new improvements in fire fighting apparatus being shown.

The Gamewell Fire Alarm Telegraph Company displayed a complete modern fire alarm telegraph system, with storage battery.

The American Fire Engine Company exhibited one of their new Metropolitan steamers, the operation of which was greatly admired by the delegates. President Wefel and H. Silsby were on the ground.

The La France Fire Engine Company gave public tests of a new La France steamer which had just been delivered to the city of Syracuse.

The Manchester Locomotive Works, makers of the well known Amoskeag steam fire engine, was represented at the convention by Mr. D. Arthur Burt.

The Fabric Fire Hose Company had a large display of the different brands of hose for which they are famous, and also exhibited their new hose expander and many other fire department supplies.

The Fire Extinguisher Manufacturing Company occupied one of the parlors of the Yates Hotel with a magnificent exhibit, including models of all the excellent fire fighting appliances they manufacture. Captain E. J. Mitchell and Messrs. Thomas, Burke, Goellner and Polglase represented the company.

A. W. Dollfin & Co. had a most novel exhibit in their new bicycle chemical engine.

The Harris Safety Company displayed their new and excellent system of fire escapes and fire alarms, being represented by Manager Truesdell of New York.

The Grant Axle and Wheel Company exhibited their splendid roller bearing wheels; also the Kelly Springfield rubber tire.

The Welder Harness Company had on exhibition their patent swinging harness, with two handsome horse models attached to a horse wagon.

The Seagrave Company had a complete exhibition of their famous trussed ladders. Charles E. Johnson represented the company.

## ...TRENCH PUMPS...

For Contractors and Water-Works. Has a capacity of from 1,800 to 6,000 gallons per hour OPERATED BY ONE MAN.

Why use steam power when you can save money by having one or more of our Pumping Out fits? Two men can move them about from place to place. They will pump water containing sand, gravel and sewerage matter without perceptible wear. Every city and contractor in the New England States has from one to seventy-five of our Pumping Outfits. Over 50,000 of these pumps sold in the last ten years. Send us your order, and if after thirty days' trial the outfit is not satisfactory it may be returned to us free of any expense to you. Catalogue for the asking.

EDSON MFG. CO.,

132 COMMERCIAL ST.,  
BOSTON, MASS.

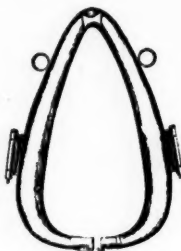
# PNEUMATIC HORSE COLLAR

ONE OF THE GREATEST INVENTIONS OF THE CENTURY.



Front View of Collar.

1. Snap lock. 2. Leather case containing rubber air cushion. 3. Comfortable bearing for neck. 4. Trace attachments which take the place of the ordinary hames. 5. Valve through which air is pumped into the collar. 6. Rein rings. 7. Hinge allowing collar to open to any width.



Rear View of Collar,

showing

Air Cushion.

## What Fire Commissioner Bryant Says.

Fire Commissioner William C. Bryant, of the Borough of Brooklyn, wrote as follows to the office of the company. The letter was written before the consolidation of the two cities, and speaks for itself:

HEADQUARTERS DEPT. OF FIRE,  
Brooklyn, N. Y.

United States Pneumatic Horse Collar Company,  
52 Broadway, N. Y.

Gentlemen—We have been using your Pneumatic Horse Collars on Truck 11, of this department, for the past two months. Judging from the reports received from the foreman of the company and from our veterinary surgeon, Dr. E. H. Heard, and from my own observation, I consider them a complete success. They are much lighter than the collars we have been using and are durable and will stand the test of long and severe runs over very bad pavements, which we have within the district covered by Truck 11. Their great advantage, to my mind, consists in the fact that they equalize the pressure on the horses' shoulders, thereby preventing sores on the shoulder and breast.

Very truly yours,

WM. BRYANT,  
Commissioner, Department of Fire.

FIRE DEPARTMENTS of NEW YORK, PHILADELPHIA, BROOKLYN and PROVIDENCE have adopted the Collar, and are unstinted in their praise.

STOOD SEVERE TESTS ON NEW YORK'S HEAVIEST APPARATUS. FIREMEN LAUD IT HIGHLY.

Say it enables them to answer alarms more quickly. This new device will revolutionize the Horse Collar business of the world. Conceded that the Pneumatic Collar is one of the most humane inventions ever conceived. Equally desirable for light carriage as for heavy draught work.

## United States Pneumatic Horse Collar Co.,

52 Broadway, NEW YORK.

### Foreman Sheridan Indorses It.

Foreman Alex J. Sheridan, of Hook and Ladder Company 11, Borough of Brooklyn, says:

Gentlemen—I take pleasure in stating the great satisfaction your Pneumatic Horse Collars have given this department. We have given them the most severe tests possible, by placing them upon horses pulling our heaviest trucks (weighing at least 9,000 to 10,000 pounds) over the rough cobblestone pavement of the outlying district of Brooklyn; for months these collars have withstood this tremendous strain without any perceptible change in the collar and without damage to our most valuable horses; the elasticity and rolling motion of the air cushion with the movements of the shoulders, render injury to the horses impossible; no chafing of the neck, as under a heavy pull the collar adjusts itself perfectly to all parts of the animal's shoulders and prevents the crush so damaging to a horse when the wheels meet any obstruction.

Yours truly,  
ALEX. J. SHERIDAN,  
Foreman H. & L. Co. 11, B. F. D.

### Tested in Philadelphia.

"The Press" of Philadelphia says:

In Philadelphia the Pneumatic Horse Collar has excited a great deal of interest and attention. Probably in no other city has the collar met with a more cordial greeting. Its practicability and the important part the collar plays in making the lives of hard working horses bearable is admitted on all sides, and the collar has many warm friends here.

# WEST SHORE RAILROAD

Superb Service.

Four Fast Trains Daily in Each Direction.

## LEAVE NEW YORK:

From foot of Franklin St.	12.45 P. M.	5.45 P. M.	8.00 P. M.	9.15 P. M.
From foot of West 42d St.	1.00 P. M.	6.15 P. M.	8.15 P. M.	9.30 P. M.
Arrive Syracuse:	8.15 P. M.	2.10 A. M.	4.05 A. M.	7.10 A. M.

## LEAVE SYRACUSE:

From New York Central Station:	6.55 A. M.	8.10 A. M.	8.50 P. M.	11.25 P. M.
Arrive New York:	3.00 P. M.	3.30 P. M.	5.45 A. M.	7.50 A. M.

Sleeping cars are attached to the above trains and reservations may be procured upon application at any West Shore ticket office, or by telephoning direct to "855 Franklin," New York.

**C. E. LAMBERT,**

General Passenger Agent,  
Grand Central Station, New York.

**H. B. JAGOE,**

General Eastern Passenger Agent,  
415 Broadway, New York.



### Fire Department Notes.

—Galesburg and Olney, Ill.; Columbus, Ga., and Jackson, O., have lately put into service up-to-date hose wagons made by the Seagrave Company of Columbus, O.

—At the recent annual meeting of the Association of Volunteer Firemen of Northeastern Ohio there was an interesting coupling contest. One man with the "Quick as Wink" couplings beat five men with the ordinary screw couplings. There were several trials and the "Quick as Wink" man won every time by from three to seven seconds.

—Charles E. Johnson, who recently resigned as assistant superintendent of the Columbus fire department to take a position with the Seagrave Company, has during the past week made these sales: To the village of Glenville, O., a No. 8 full trussed Seagrave hook and ladder truck; to Greenfield, O., a chemical hose wagon; to Jeffersonville, O., a large sized combined hand and horse chemical engine.

—The Seagrave Company of Columbus, O., have just completed another large addition to their factory buildings, the same being two stories in height and measuring 40 by 200 feet in area, and this with the other building constructed this year so far, more than quadruple their former factory space. Another building of the same size will probably be erected before the coming winter, as new men are being constantly employed to try and keep up with the rapidly increasing trade.

### A Poor Fire Department.

The city of Scranton, Pa., with a population of 110,000, still clings to the semi-paid and semi-volunteer fire department. This would be bad enough, but it is not half the tale of woe. Until within the past few weeks it has had only about one-fourth an adequate supply of hose.

When recently inspected by a representative of "City Government" the department was found to lack discipline, thorough organization and training among its paid members. Three new hook and ladder trucks and one new engine were also badly needed. The fire alarm telegraph is contracted out to the local telephone company and frequent mistakes occur. The chief is powerless to change this condition of things because the service is not under his management.

Enough money has been spent on the department annually to make it equal to the full paid service of Elmira, but no one seems to know how the wretched condition of its affairs came to pass.

The present chief, Charles Walker, has only been at the head for a few months, but has taken hold of the work with a vigorous hand and is thoroughly re-organizing the service from the ground up. If he receives sufficient co-operation he will soon make the Scranton department second to none in the state of Pennsylvania.

### Pennsylvania Firemen's Convention.

According to a circular issued by Secretary Tannier of the Pennsylvania State Firemen's convention committee, the following will be the program for the week at Scranton:

Monday, October 2, reception of delegates and visiting firemen.

Tuesday, October 3, 10 a. m., opening of convention at court house.

Wednesday, October 4, 10 a. m., session of convention.

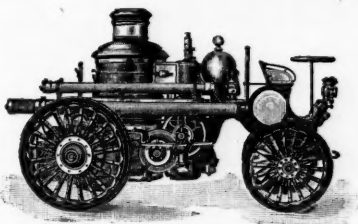
Thursday, October 5, 1 p. m., grand parade of firemen. Prizes will be offered for the largest uniformed company in line; the finest uniformed company in line; the finest looking steamer in line; the finest looking hose carriage in line; the finest looking hose wagon in line; the finest looking hook and ladder truck in line. No home companies will compete.

Friday, October 6, 10 a. m., tournament and prize contest.

### Novel Fire Service Contrivances.

Capt. Thomas Cornell, of Company No. 1, of the Wilkes-Barre fire department, is the mechanical genius of the force. He has provided an electrical contrivance whereby a gas jet is automatically lighted by the wheels of the engine and turned off as it leaves its position, for the purpose of starting the fire in the engine. The hose wagon is the first to leave the building, and he has an electric automatic action with that which opens the doors of the engine house as the wagon leaves its place. Besides this he has made a small iron tool which enables him to take down the hose from the hose-tower without the services of a man at the top.

## Amoskeag Steam Fire ENGINES



Horse and Steam  
Propelling.

Manufactured by

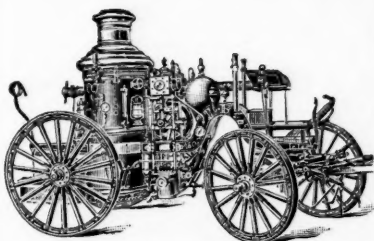
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Send for Catalogue to J. G. WHITNEY, Treas.

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BOSTON, MASS.

## The American Piston and Rotary



STEAM FIRE ENGINES

The Standard for Quality and Service.

**2,300 ENGINES IN USE.**

Also Hose Carriages and Carts, Heaters, Steam and Power Fire Pumps, and Fire Department Supplies of all kinds. Illustrated Catalogue Free on Application.

**AMERICAN FIRE ENGINE CO.**

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## The La France Fire Engine Co.

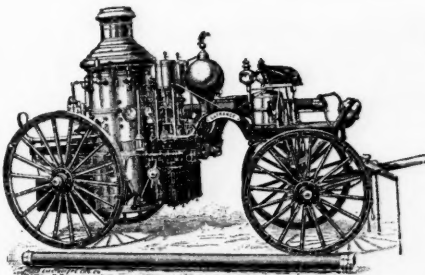
Sole Manufacturers of

The LA FRANCE PISTON and ROTARY

## Steam Fire Engines

..HAYES..

Patent Extension Hook and  
Ladder Trucks and  
Fire Escapes.



Heaters and Fire Department  
Supplies.

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